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VOL. II.—10TH YEAR.

SYDNEY: SATURDAY, AUGUST 4, 1923.

No. 5.

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### An Address.<sup>1</sup>

By T. G. WILSON, M.D., Ch.M. (Sydney),  
F.R.C.S. (Edinburgh),

*Retiring President of the South Australian Branch of the  
British Medical Association.*

I MUST first thank the members of the Branch for electing me President a year ago, especially as I was away from the State at the time. While I realize my shortcomings in rising to the occasion, I am none the less proud of the honour done me in having placed me in the Presidential chair. To the Honorary Secretary and to the members of the Council generally I am greatly indebted for their advice and assistance in carrying out the work of the Branch during the year; and the unflinching harmony existing at our Council meetings has made the duties of President all the more agreeable. Dr. Brian Swift, as Honorary Secretary, has devoted an immense amount of time to the work and it is to his efforts that the success of the clinical evenings has been largely due. To Mr. Hodge, the lay Secretary, our thanks are also due for the personal interest he has

taken in the working of the Branch and the way in which he has carried out his duties.

It has been in many ways an uneventful year, but my term of office has been marked by the finalizing of the negotiations with the lodges in reference to the terms of the Model Lodge Agreement and as President I have been called on to sign these agreements, though I realize to the full that the work in connexion with these was carried out during the term of office of my two predecessors, Drs. Newland and Smeaton, and I think that the members of the Branch should be made cognizant of the immense amount of time and trouble that these two past Presidents have given up in order to get this important matter put on a satisfactory basis. Although minor details may crop up from time to time, the basis of working with the lodge executives seems to be fixed on a satisfactory footing for some time to come.

The scope of the work of the Federal Committee has increased enormously and the consideration of Federal Committee matters takes up a good portion of the time of the local Council each meeting, but our Branch is fortunate in having two such live wire practitioners as Dr. Hone and Dr. Newland to represent this State. This year has marked the granting of a far larger amount of autonomy to the

<sup>1</sup> Delivered at the Annual Meeting of the South Australian Branch of the British Medical Association on June 22, 1923.

individual Branches of the British Medical Association and the time is now not far distant when our Branch will be in the position to own its own building and to conduct its business without many of the regulations which to some extent hampered its freedom, while retaining the perhaps sentimental, but very vital basis of reciprocity with the parent Association.

Very few ethical questions have come up during the year, but the Council has made endeavours to have some more satisfactory arrangement with the Government in reference to the remuneration of medical witnesses who are, especially when called from the country to give evidence, often put to considerable financial loss in the carrying out of these duties.

#### Registration of Nurses.

I do not propose to give an address on any purely professional subject, as the only ones I would feel competent to deal with in this way would not perhaps interest some of our members, but I would like to take this opportunity of making a few remarks about one or two subjects that seem to me to be important at the present time and that, I think, very vitally interest us as a profession generally.

During this year we have had completed the machinery for the registration of nurses in South Australia and the Nurses' Registration Board, which will have to administer the provisions of the new Act, has really got into working order since our last Annual Meeting. To me personally, knowing something of the original conception of a *Nurses' Registration Bill* in South Australia and having been associated with the largest association for the training of nurses in South Australia since its inception in 1904, the bringing in of this Act has been of more than passing interest. Perhaps we have something to be thankful for that the standard required by the new Act for the training of general nurses is approximately what has been recognized in the past as being necessary, when it is realized that the agitation for a *Nurses' Registration Bill* was originally a quasi-political movement and apparently not so much inspired with the idea of maintaining or improving the standard of nurses' training generally, as of making it easier for the smaller country hospitals, by being recognized as whole or part time training schools to get probationers. The standard of nurses' training before the passing of this new Act was that set up by the two nurses' associations in existence in South Australia, *videlicet* the Australasian Trained Nurses' Association and the Royal British Nurses' Association. But, as a member of the Sub-Committee of the Nurses' Registration Board which drew up the regulations under the *Nurses' Registration Act*, I can assure you that it was not at all an easy matter to convince some of the other members of this Sub-Committee that any such standard was required or was a good thing for the public generally. And the surprising part about this was that some of the opposition to such a standard came from members of our own profession. For instance, one of the first questions that

arose was the necessity or otherwise of an elementary knowledge of anatomy and physiology for nurse trainees, which one would have thought would have been generally accepted as absolutely necessary. However, the lay representative of the Country Hospitals' Association, instructed in writing by a leading medical man of that Association, held that such instruction was quite unnecessary for a nurse trainee and it was only after explaining in a personal manner what elementary physiology really meant, that even the lay representative was convinced that such elementary knowledge must be the ground work for the making of a competent nurse. However, the regulations for the training of general nurses were eventually agreed upon and as they read at present, are satisfactory. I think that if the training is carried out in the spirit of the Act, the standard of our trained general nurses will not suffer.

#### Midwives and Midwifery Nurses.

But in regard to the training of midwives, as the regulations of the Act read at present the matter is far otherwise. One realizes acutely the necessity in South Australia for more trained women to nurse midwifery patients and also realizes that the only two training schools for midwives, namely the Queen's Home and the McBride Maternity Home, are not able to train as many midwives as are required.

As the Act stands at present, any hospital admitting midwifery patients, whether they are private patients or otherwise, may be registered as a training school for midwives, provided certain regulations are complied with. But although the regulations for the theoretical instruction of trainees are satisfactory, if carried out, it is not necessary for the nurse trainee to have actually conducted a single case of labour on her own responsibility during her course of training. She is only required to have been present at a certain number of cases of labour and to pass the necessary theoretical examination to be registered as a midwife, which means that she is allowed to conduct cases of labour on her own responsibility without the presence of a medical practitioner. This is surely wrong, both to the public and to those women who have taken the ordinarily accepted course of training for a midwife and who have been required actually to conduct at least twelve cases of labour on their own responsibility during their course of training. That a woman who has had the course of training required by the Act, would be better than the ordinary "Sairey Gamp" is quite admitted and that there is room for such a class of nurse who would only be allowed to work with a medical man; cannot be gainsaid, but why call such women midwives and why put them on exactly the same footing as women who have trained at a regular midwifery training school, where the patients, not being private patients, can be utilized for teaching purposes and where each trainee is required actually to conduct normal labour cases while still under supervision? The Nurses' Registration Board have asked the Government to have the Act amended and it is to



be hoped that this will be done, so that this anomaly may be rectified, before a number of women are liberated on the public, entitled to undertake work which they have not been properly taught to do. The suggestion is that there shall be two classes of nurses who may attend midwifery patients, the trained midwife who is entitled to attend patients without a doctor, and the midwifery nurse who will only be entitled to attend patients with a doctor also in attendance. It seemed to me that this matter is of sufficient interest to the profession generally to lay these details before members, as I have found very few medical men who have actually realized the conditions created by the new Act.

#### Training of Students in Obstetrics.

And while I am talking about midwifery training, it seems an appropriate time to say something about the training of medical students in this important subject. This matter has been much in my thoughts for a number of years and in a paper which I read before the Gynaecological Section of the Australasian Medical Congress in Brisbane in 1920, I raised a plea for the more efficient training in practical obstetrics of students at our Australian universities.

A resolution was carried by this Section that this paper should be published in *THE MEDICAL JOURNAL OF AUSTRALIA*, but possibly owing to pressure of other material, I do not think it has ever been published except in the Transactions of the Congress. This matter was again impressed on my notice by reading a paper entitled "The New Midwifery" by the late Sir James Ballantyne, one of the pioneer advocates for the more efficient training of students in midwifery. This was published in one of the recent numbers of *The British Medical Journal* and will amply repay reading by anyone interested in this subject.

The regulations of the General Medical Council in England, the body which exercises a general supervision over the education of medical students throughout the Empire, have laid it down that three months of a medical student's course of study shall be devoted entirely to practical obstetrics and seeing the importance of this subject for the man in general practice, surely this does not seem to be too much. But in our own curriculum students are only supposed to do one month at the Queen's Home, two weeks in the fourth and two weeks in the fifth year, and also to attend at the pre-maternity clinic which is at the present time unfortunately more or less moribund.

Our students have, of course, the regular course of systematic lectures in midwifery, but it is in regard to the facilities for practical instruction that I wish to speak.

One quite realizes that the number of cases of labour that are available for teaching purposes at our only teaching hospital, the Queen's Home, is comparatively small and that as things are at present, clinical lectures and instruction to the students have to be given at definite pre-arranged times, when cases suitable for practical teaching may or may not be available. And under the present system this must always be so.

But if there were a maternity block at the Adelaide Hospital and an extern midwifery department in connexion with this, it would be much easier for students to see cases at any time during the period they are doing hospital work, without unduly interfering with their ordinary clinical work and when emergency and abnormal cases of obstetrics did arise, they could easily be notified and so have the opportunity at any rate of seeing such cases. Under the present conditions it is quite possible for a student never to have seen the application of forceps before graduation.

And with an extern department, senior students who had been through the routine of work in the wards, would be available to go out with the house surgeon to attend extern cases and here get valuable experience in the conduct of labour as it actually occurs in private practice. During the time that I was doing midwifery at the Rotunda Hospital in Dublin, I found this practical work amongst extern cases most helpful and valuable; and it brings home to one the possibilities of being able to carry out the ordinary principles of asepsis in the poorest home.

The training of nurses also in similar conditions would be a great advantage. That there would be plenty of patients available if there were beds to accommodate them, I am quite sure, and every practitioner who is doing midwifery, must realize that there are many patients each year who, he knows, are not likely to pay for attendance and whom he would prefer to send to the hospital or to hand over to the extern maternity department to be attended by a house surgeon with a student and a nurse, both of whom would be gaining valuable experience in the practical part of this work.

The Pre-maternity Clinic which was started at the Adelaide Hospital after the war has never flourished, simply because there were no beds available for patients who needed hospital supervision, except those with very urgent complications, who had to be sent to the already overcrowded gynaecological wards. When I took over the running of the Clinic in 1919, I was definitely promised by the then Chairman of the Hospital Board, that a pre-maternity ward would be established and also a midwifery ward, but these seem to be just as far off as in 1919.

The medical curriculum covers now six years instead of five and a revision of the course of study for medical students has been made lately, but owing to the lack of facilities for carrying out the practical teaching of modern obstetrics, as Ballantyne has defined it, the teaching of this important part of the medical student's instruction is much the same as it was thirty or forty years ago. In fact, I think that in some ways it is not as efficient, as in those days the student was apprenticed to a medical man and had the opportunity of seeing and assisting at cases as they actually occur in private practice, while still under the supervision of a more experienced man.

In obstetrics far more than in any other branch of medicine, as soon as a student is qualified, he is

supposed to be able to deal with any emergency that arises and deal very often with it single-handed. This naturally pre-supposes a certain amount of practical experience before graduation and yet one realizes that our students before graduation have not had the opportunity to get this practical experience and even often have had but the slightest experience with the conditions incident to normal labour.

In the Gynæcological Wards at the Hospital every year a large number of affections in patients who are admitted for operation or for treatment, can be definitely put down to the results of poor midwifery and many of these ought to be preventable; amongst these cases those of meddlesome interference bulk largely.

In a country crying out for population does it not seem right that every provision should be made to insure that those women who do have children, should be as efficiently looked after as possible? Surely the first step in this direction is to see that each student before graduation has had every opportunity of instruction in the conduct of normal and abnormal labour. I quite realize that the condition is a difficult one to cope with and that the shortage of money has been a great stumbling block, but is it not part of the responsibility of the University and the Medical Faculty that the facilities for the teaching of the practical part of this important subject shall be available for students? This part of the teaching of our students will remain defective until there is a properly equipped maternity department, with pre-maternity wards, a pre-maternity clinic and provision for extern midwifery cases in existence (and in my opinion this department should be in connexion with the Adelaide Hospital and have accommodation for students to "live in" during part of their course of instruction). And further than this some provision must be made for a more or less full time experienced teacher actually to supervise this work. This practical teaching cannot be left entirely to a house surgeon or to the matron, as has been done in the past at the Queen's Home, but should be by an experienced teacher who must be available when the cases actually occur. Is there no possibility of some of the money left to the Medical School lately being put aside to found a chair of obstetrics and gynæcology and of some pressure being brought to bear on the Government to make provision for such a department as I have outlined? I am sure that some of the money at present expended on maternity bonuses would be of more use to the community at large if used in this manner.

There are a number of small maternity charities in Adelaide, the Fullarton Refuge, the House of Mercy, the Salvation Army Home, the McBride Maternity Home and others, all probably doing quite good work, but the cases are lost from a teaching point of view. Although there are many obstacles in the way of utilizing these patients till such time as something on the lines of the above suggestions can be carried out, perhaps some effort could be made that some, at any rate, of these patients might be made available for teaching purposes.

#### Special Training in Operative Surgery.

I am afraid that my remarks have been rather in the nature of a grouse about things as they are, but before closing I would like to say a few words in reference to a matter which seems to me to concern very vitally the profession as a whole. During the twenty odd years that I have been on the staff of the Adelaide Hospital, it has been borne in on me more and more forcibly and especially the last few years that the time must come when some provision must be made to insure that practitioners who undertake major surgery, shall have made some attempt to qualify themselves for such work. Of course, I am not talking about emergency surgery in country districts, where the man in charge must of necessity give a patient a chance, even though he realizes that his experience in surgical work is perhaps not as great as he might wish. When a man qualifies he has had the groundwork of his profession instilled into him and if he intends to undertake major surgery, surely it should be necessary for him to have served some time as an assistant or to have made some special effort to fit himself for such work before taking on serious cases that might test the capabilities of even the most experienced surgeon. This condition has been recognized in America especially, where the profession has established a College of Surgeons and before a man is admitted to membership of this, he must have given proof that he has fitted himself and is capable of doing the work he proposes to undertake. In these days when inquiries are made as to the fitness of men for taking on such positions as factory surgeons and other positions for which a diploma of public health or some such degree is considered necessary, is it out of the way to inquire what preparation a man has had who undertakes work in which actual practical experience seems absolutely necessary?

We as a profession have a monopoly of treating illnesses and that monopoly carries with it certain responsibilities to the public.

On what lines it will be necessary to tackle this problem, I am not prepared to say, but from my personal experience of some of the gynæcological surgery that has eventually come into my ward at the Hospital, I do say that from the point of view of the protection of the public it is a thing that we as a profession will sooner or later have to face. While it is certainly only to a small number of the members of the profession that these remarks could apply, as I believe that the vast majority of men would have the ultimate good of their patients at heart and would not think of attempting an operation which they felt was likely to be beyond their experience, I am sure that it is time that some notice should be taken of the possibility of things being otherwise.

On reading through what I have written, I am reminded of my feelings when I read a book by H. G. Wells called "New Worlds for Old," in which the present order of things was unmercifully pulled to pieces and in their place suggestions made for many Utopian ideas, most of which at first sight one could not but agree with. But on rereading the

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book, I could not help realizing that destructive criticism is always more easy than criticism which is constructive in nature. So I hope that even if my remarks have been rather of the "destructive criticism" order, they will be taken in the spirit that they are made with a genuine desire to improve the conditions and ideals of the great profession to which we all belong.

#### THE TREATMENT OF DIABETES.<sup>1</sup>

By A. E. MILLS, M.B. (Sydney),  
Professor of Medicine, University of Sydney.

BEFORE discussing with you the dietetic management of diabetes I wish to refer briefly to some factors in the causation of this prevalent disease. In a paper previously published in THE MEDICAL JOURNAL OF AUSTRALIA,<sup>(1)</sup> I cited evidence for the belief that diabetes is due to a deficiency of the internal secretion of the pancreas and that this deficiency is due to a degeneration of the islet tissue of that organ. What causes this degeneration? Pancreatitis, acute or chronic, is not infrequent. Pancreatitis is the expression of an infection. Many of you must have noticed the frequent association of glycosuria and cholecystitis and the disappearance of the glycosuria with the subsidence of the cholecystitis. Is it not reasonable to assume that the infection causing the cholecystitis so affected the islands of Langerhans that their secretory power was greatly reduced and that the glycosuria followed because of the deficient function of this islet tissue?

If this be granted, then it would appear that the degeneration of the islet tissue is in many cases due to an infection of the pancreas. Let me quote a case of diabetes which supports this view. A little girl of six years had suffered from diabetes for a year or more. Her urine was loaded with diacetic acid and contained 5% of sugar. Her tonsils were enlarged and very unhealthy. She had much post-nasal adenoid tissue and as a result of many previous infections of the tonsils and adenoids the deep cervical glands were greatly enlarged. The gums, too, were unhealthy and inflamed. I endeavoured by dieting, on lines to be advocated later, to bring about a disappearance of the sugar and the acidosis previous to operation for the removal of the adenoids and enucleation of the tonsils, which I had recommended. Under treatment the child improved greatly, but shortly after the sugar and diacetic acid had disappeared and the diet was gradually being increased, the little patient developed a severe ulcerative stomatitis and gingivitis, with aphthous patches on the tonsils. During the affection of the mouth the urine again became loaded with sugar and diacetic acid. The child became very drowsy and appeared to be on the verge of diabetic coma. By the persistent use of mouth washes, "Eusol" and

hydrogen peroxide, by giving much fluid and as much of her prescribed diet as we could, the ulcerative stomatitis subsided, the drowsiness disappeared and dietetic management again led to improvement.

Soon after the glycosuria and diacetic acid had again disappeared, I urged that the tonsils and adenoids should be removed. The operation was successfully performed and the child made wonderful progress, taking a diet more than sufficient for its need as regards calories and containing a sufficiency of protein. Her urine remained free from sugar and ketone bodies. She returned to her home in the country and continued to improve and gain weight. A few weeks later I learned that the child developed measles and during this fresh infection the glycosuria returned.

Observe the sequence of events: With affected tonsils and adenoids, glycosuria and ketonuria; disappearance of sugar and ketone bodies under dietetic treatment; reappearance of glycosuria and ketonuria with onset of ulcerative stomatitis; disappearance of glycosuria and ketonuria after recovery from stomatitis; reappearance of glycosuria during an attack of measles.

I could quote other cases, somewhat similar, to support the view that glycosuria is frequently due to an infective process.

Just as recurring or persistent infection of the tonsils or other tissues may and sometimes does set up and maintain a nephritis, so may it also set up a pancreatitis and lead to degeneration of one after another of the islands of Langerhans. When the greater part of the islet tissue is put out of action, glycosuria will result. Very probably, nay, almost surely the degeneration of the islet tissue is the result not of one, but of oft-repeated infectious attacks. With each attack more islet tissue undergoes deterioration until at last an insufficient amount remains to carry on its all important function.

The point that I wish to emphasize is that before we undertake the treatment of a case of diabetes, we should search for all sources of infection and, if possible, remove them; otherwise our treatment will be in vain.

Dealing now with the treatment of diabetes, I wish you to understand that I propose tonight to discuss only the dietetic management of this disorder.

If we are to treat our patients with understanding, we must bear in mind certain established facts.

(i.) Diabetes is a disorder of metabolism in which there is a disability to use, *id est* to oxidize or burn up sugar.

(ii.) The disability to burn up sugar is due to a deficiency of the internal secretion of the pancreas.

(iii.) This disability is of varying grades. In mild cases of diabetes the power to utilize sugar is considerable. In severe cases the capacity to make use of sugar is very limited.

<sup>1</sup> Read at a meeting of the New South Wales Branch of the British Medical Association on June 29, 1923.



(iv.) In all untreated cases the sugar, not being oxidized, accumulates in the blood; hyperglycæmia results; glycosuria follows.

(v.) In severe cases, because very little sugar is burned up, the fats cannot be completely burned; acidosis results. In mild cases the amount of sugar oxidized is considerable, sufficient to burn up fats completely so that acidosis does not result.

(vi.) Acidosis then is a resultant effect of the incapacity to burn sugar.

(vii.) The treatment of diabetes is essentially dietetic management.

Dietetic management implies that we should bring the amount of glucose from all sources within the limits of the organism to deal with it completely, so that there shall be no waste and further that we must adjust the relationship of glucose to fat so that the body may remain free from ketone bodies which are the cause of acidosis. Too often the physician thinks only of the combustion of carbo-hydrates and fats introduced in the food, the endogenous supply, *id est* the carbo-hydrates, proteins and fats of the body are disregarded. Far too readily he cuts down the carbo-hydrate and even the fat without thinking of the effect of such depletion in the metabolism of the organism. Carbo-hydrates, protein and fat are very generally looked upon only or chiefly as substances yielding so many calories, that to provide the necessary calories for the needs of the body, carbo-hydrates, protein and fat may be used in varying quantities, a deficiency of one class of foodstuff being made up by an excess of another.

It is essential to bear in mind that for proper metabolism there must be an adjustment of the proximate principles—carbo-hydrates, proteins and fats.

To make these matters clear, let us see what happens in starvation. A normal man about fifty kilograms (eight stone) during a fast and on light exercise, will produce 1,500 calories a day. To do this he will burn up his tissues to the extent of about 75 grammes of protein and 125 grammes of fat and a little carbo-hydrate from his glycogen. I wish to emphasize these facts to show that in fasting over 100 grammes of the body fat may be used up daily. Now, Lusk<sup>(5)</sup> has shown that in fasting when there was much fat present, little protein was consumed; when there was little fat present, much fat was burned; when there was no fat, protein alone yielded the necessary energy for life. This means that fat consumption spares protein consumption. Further, the ingestion of fat will spare the consumption of the fat of the body and may thus prevent undue consumption of the protein of the body, when little fat is present. To a dog which in starvation burned 96 grammes of fat, Voit gave 100 grammes of fat. The dog burned 97 grammes of fat. This shows that the dog burned the fat ingested instead of his tissue fat, but he still burned the same amount of fat and protein.

Now it is a prevailing practice to starve a diabetic to make his urine sugar-free, but during starvation he will use up his available stores of glucose and glycogen and will then burn up over 100 grammes

of fat daily. If he were given 100 grammes of fat, he would burn this instead of burning his tissue fat.

From all these facts it does not seem a rational physiological practice to withhold fat from the diabetic. Again it is recommended to starve a diabetic, although he may be in a state of under-nutrition, then to introduce carbo-hydrates in gradually increasing amounts daily until glycosuria appears (Newburgh and Marsh,<sup>(6)(7)</sup> Newburgh, Marsh and Holly<sup>(8)</sup>). The patient is again starved and given two-thirds of the amount of carbo-hydrate that produced glycosuria. At this time small and gradually increasing amounts of protein are added. Then fat is added, but during this period, a period of many days, he is burning up his tissue fat and his protein to supply the necessary number of calories for his existence. This does not appear a sound physiological practice. Why cause the diabetic to use his tissue fat when he can, as we have seen, burn up fat given in food just as well? To withhold fat from a diabetic so as to avoid acidosis, is to suppose that he will not burn up tissue fat or not to the same extent. It cannot be too strongly emphasized that a deficiency in diet means a corresponding consumption of the tissues. Deficiency of fat in the food of a diabetic with low carbo-hydrate intake means that a considerable amount of fat of the body will be consumed to provide the necessary energy of the body and, if this be not forthcoming, a large consumption of protein. It certainly is not necessary to starve all diabetics even for a limited period. Probably it is not necessary to starve any. The glycosuria in many can be removed by diminishing the intake of carbo-hydrates and protein. We must ever keep in mind that protein yields more than half its weight of glucose. To cut off all carbo-hydrate and allow an unlimited supply of protein is simply to give the body a foodstuff which yields a very large quantity of glucose; in short to give glucose from protein instead of glucose from starch or cane sugar. The fallacy of such a practice needs emphasis, for unfortunately it is not uncommon. Remember again that both carbo-hydrates and fats given in the food spare the consumption of protein. Further, it has been shown by numerous observations that the normal person can live and work well on a much smaller amount of protein than is generally taken. Let me remind you that Chittenden and his subjects for experiment felt well, worked well and maintained their weight on fifty grammes of protein daily, whereas in the standard diet of Voit, one hundred and eighteen grammes of protein are given as the daily requirements.

All these observations then point to the fact that a high protein diet is to be avoided in the treatment of the diabetic. We must consider the fats in the dietary from two points of view, their high caloric value and the fact that they may produce, if given in excess, a certain amount of incompletely burned acids which may produce acidosis. A further fact must also be borne in mind—that with a low carbo-hydrate diet, if fat be not given in sufficient quantities, the deficiency in the caloric value of the food will be made up by the burning of tissue fat. Unless



the patient be obese, deprivation of fat in the food will certainly not be beneficial.

As I understand it the object of starvation or great restriction of the diet is to get the body to burn up the excess of sugar in the blood and then to find by using a properly balanced diet the amount of glucose that can be utilized by the body, so that no excess remains in the blood. But there is something more and that is the application of the fundamental principle of rest to an overtaxed organ.

The diabetic with glycosuria, that is, with hyperglycæmia, is making too great demands on the internal secretion of his pancreas. Experience shows that if the diet be adjusted so that the function of the pancreas with its limited internal secretion be not overtaxed, this organ may and will increase in functional power. Even if this object be not attained, the diabetic will, at any rate, be living within his means. The dietetic management of the diabetic, then, is to give that amount of carbo-hydrate, fat and protein which will provide the necessary number of calories to satisfy the demands of the body, and in such proportions that they will be properly consumed.

The following hypothetical diabetic diets (Wood-yat) are very instructive.<sup>(1)</sup>

In discussing these diets bear in mind that the glucose yielded by each may readily be estimated by remembering that all the carbo-hydrate, one-tenth of the fat and a little more than half the protein are converted into glucose. These facts are expressed in the formula:  $G = C + 0.58P + 0.1F$ . G standing for glucose, C for carbo-hydrate, P for protein and F for fat.

Each diet will supply about 1,400 calories except No. IV. which yields 1,700 calories. No. I., II. and IV. will yield about 100 grammes of glucose; No. III. will be found to yield 118 grammes of glucose.

If now we suppose that the foodstuffs in these diets are burned up and are sufficient for the requirements of a patient weighing fifty kilograms (eight stone), then the diabetic able to consume, say, 100 grammes of glucose only will be able to deal with diets No. I. and No. II., but with diet No. III. he will have glycosuria. Diet No. IV. yields 300 more calories, but only about the same amount of glucose as No. I. and No. II. It may be consumed as well as the others.

Foodstuff.	No. I. Diet.	No. II. Diet.	No. III. Diet.	No. IV. Diet.
Carbo-hydrate . . . . .	10 grammes	77 grammes	60 grammes	51 grammes
Fat . . . . .	84 grammes	108 grammes	91 grammes	135 grammes
Protein . . . . .	150 grammes	30 grammes	85 grammes	70 grammes
	1,396 grammes	1,400 grammes	1,399 grammes	1,699 grammes

The glucose content is estimated from the formula:  $G = C + 0.58P + 0.1F$ .  
The fatty acid content is estimated from the formula:  $FA = 0.44P + 0.9F$ .

Diet No. I.—Glucose = 103. Fat = 168.  
Diet No. II.—Glucose = 104. Fat = 111.

Diet No. III.—Glucose = 118. Fat = 118.  
Diet No. IV.—Glucose = 104. Fat = 152.

#### DIET I.

Meal.	Items.	Quantity.	Carbo-hydrate.	Protein.	Fats.
Breakfast . . . . .	Broth		—	—	—
	Tea and Cream	14 c.cm.	—	—	5 grammes
	1 Egg		—	8 grammes	6 grammes
	Bacon	28 grammes	—	3 grammes	18 grammes
	Butter	14 c.cm.	—	—	11.5 grammes
Dinner . . . . .	Broth		—	—	—
	Tea and Cream	14 c.cm.	—	—	5 grammes
	Fish	28 grammes	—	5 grammes	—
	5% Vegetables	112 grammes	4 grammes	—	—
	Olive Oil	14 c.cm.	—	—	14 grammes
Tea . . . . .	Broth		—	—	—
	Tea and Cream	14 c.cm.	—	—	5 grammes
	5% Vegetables	168 grammes	6 grammes	0.5 gramme	—
	Olive Oil	28 c.cm.	—	—	28 grammes
			10 grammes	16.5 grammes	92.5 grammes

This diet yields 28 grammes of glucose, 90 grammes of fatty acid and 932 calories.

## DIET II.

Meal.	Items.	Quantity.	Carbo-hydrate.	Protein.	Fats.
Breakfast . . . . .	Broth	—	—	—	—
	Tea and Cream	14 c.c.m.	—	—	5 grammes
	1 Egg	—	—	8 grammes	6 grammes
	Bacon	28 grammes	—	3 grammes	18 grammes
	Butter	14 grammes	—	—	11.5 grammes
	5% Vegetables	84 grammes	3 grammes	—	—
Dinner . . . . .	Broth	—	—	—	—
	Tea and Cream	14 c.c.m.	—	—	5 grammes
	Fish	56 grammes	—	10 grammes	—
	5% Vegetables	112 grammes	4 grammes	0.5 gramme	—
	Olive Oil	14 grammes	—	—	14 grammes
Tea . . . . .	Broth	—	—	—	—
	Tea and Cream	14 c.c.m.	—	—	5 grammes
	5% Vegetables	168 grammes	6 grammes	0.5 gramme	—
	Olive Oil	28 c.c.m.	—	—	28 grammes
			13 grammes	22 grammes	92.5 grammes

This diet yields 34-grammes of glucose, 93 grammes of fatty acid and 968 calories.

You may say that the high fat content will result in incomplete combustion and lead to acidosis. It has been found that acetone bodies will not appear in the urine if the ratio between fatty acids and

F.A.

glucose does not exceed 1.5:1, if  $\frac{\text{F.A.}}{\text{G.}} = 1.5$ , where

G.

F.A. = fatty acids from fat and equivalent ketogenic acids from protein metabolism. The equation  $\text{F.A.} = 0.44\text{P} + 0.9\text{F}$ , expresses the amount of fatty acid yielded by the diet. A diet of fifty grammes of protein, fifty-seven of carbo-hydrate and one hundred and thirty-nine grammes of fat would yield 100 grammes of glucose and 147 grammes of

F.A.

fatty acid. Ratio  $\frac{\text{F.A.}}{\text{G.}} = 1.47$ . Total calories =

G.

1,700. These facts may be stated in simpler form. The diet should contain as large an amount of fat as can be consumed without the production of acetone bodies. The glucose resulting from the metabolism of carbo-hydrate and protein must be within the power of the body to burn it. Remember that one gramme of glucose will provide for the combustion of 1.5 grammes of fat.

Every gramme of fat that can be burned should be added to the diet, so that it may contain the greatest number of calories. For example, a diet

## DIET III.

Meal.	Items.	Quantity.	Carbo-hydrate.	Protein.	Fats.
Breakfast . . . . .	Broth	—	—	—	—
	Tea and Cream	14 c.c.m.	—	—	5 grammes
	1 Egg	—	—	8 grammes	6 grammes
	Bacon	28 grammes	—	3 grammes	18 grammes
	Butter	14 grammes	—	—	11.5 grammes
	5% Vegetables	112 grammes	4 grammes	0.5 gramme	—
Dinner . . . . .	Broth	—	—	—	—
	Tea and Cream	14 c.c.m.	—	—	5 grammes
	Fish	56 grammes	—	10 grammes	—
	5% Vegetables	140 grammes	5 grammes	0.5 gramme	—
	Olive Oil	14 c.c.m.	—	—	14 grammes
Tea . . . . .	Broth	—	—	—	—
	Tea and Cream	14 c.c.m.	—	—	5 grammes
	5% Vegetables	168 grammes	6 grammes	0.5 gramme	—
	Olive Oil	28 c.c.m.	—	—	28 grammes
	1 Egg	—	—	8 grammes	6 grammes
	Butter	14 grammes	—	—	11.5 grammes
			15 grammes	30.5 grammes	110 grammes

This diet yields 44 grammes of glucose, 112 grammes of fatty acid and 1,170 calories.

## DIET IV.

Meal.	Items.	Quantity.	Carbo-hydrate.	Protein.	Fats.
Breakfast . . . . .	Broth	—	—	—	—
	Tea and Cream	14 c.cm.	—	—	5 grammes
	1 Egg	—	—	8 grammes	6 grammes
	Bacon	56 grammes	—	6 grammes	36 grammes
	Butter	14 grammes	—	—	11.5 grammes
	Tomatoes	140 grammes	5 grammes	0.5 gramme	—
Dinner . . . . .	Broth	—	—	—	—
	Tea and Cream	28 c.cm.	—	—	10 grammes
	Fish	84 grammes	—	15 grammes	—
	5% Vegetables	168 grammes	6 grammes	0.5 gramme	—
	Olive Oil	14 c.cm.	—	—	14 grammes
Tea . . . . .	Broth	—	—	—	—
	Tea and Cream	28 c.cm.	—	—	10 grammes
	5% Vegetables	224 grammes	8 grammes	1 gramme	—
	Ham	28 grammes	—	4 grammes	8 grammes
	Olive Oil	28 c.cm.	—	—	28 grammes
			19 grammes	35 grammes	128.5 grammes

This diet yields 52 grammes of glucose, 130 grammes of fatty acid and 1,368 calories.

of fifty-five grammes of carbo-hydrate, fifty grammes of protein and one hundred and twenty-five grammes of fat would yield 1,545 calories, 84 grammes of glucose and 139 grammes of fatty acid. Such a diet would be sufficient or almost sufficient for the requirements of a person weighing fifty kilograms (eight stone). It would provide thirty calories per F.A.

kilogram. The ratio — would be 1.4.

G. F.A.

If we keep to such a diet that the ratio — does G.

not exceed 1.5, we are working on lines that will certainly avoid the production of ketone bodies, assuming, of course, that the glucose content of the diet can be burnt up. But following the procedure adopted by Newburgh and Marsh, I have found, as they did, that much greater amounts of fat can safely be given to patients with diabetes, amounts which bring the ratio of fatty acids to glucose up to 3.5:1 or even higher. Indeed, if we follow the course indicated by these observers we will begin our dietetic treatment of the diabetic patient with such a diet as the following, without any preliminary

## DIET V.

Meal.	Items.	Quantity.	Carbo-hydrate.	Protein.	Fats.
Breakfast . . . . .	Broth	—	—	—	—
	Tea and Cream	28 c.cm.	—	—	10 grammes
	1 Egg	—	—	8 grammes	6 grammes
	Bacon	56 grammes	—	6 grammes	36 grammes
	Oatmeal (raw)	7 grammes	9 grammes	2 grammes	1 gramme
	Milk	56 c.cm.	1.5 grammes	1 gramme	1 gramme
	Butter	14 grammes	—	—	11.5 grammes
Dinner . . . . .	Broth	—	—	—	—
	Tea and Cream	28 c.cm.	—	—	10 grammes
	Fish	56 grammes	—	10 grammes	—
	5% Vegetables	112 grammes	4 grammes	5 grammes	—
	Onion	28 grammes	2 grammes	—	—
	Olive Oil	14 c.cm.	—	—	14 grammes
Tea . . . . .	Broth	—	—	—	—
	Tea and Cream	14 c.cm.	—	—	10 grammes
	5% Vegetables	168 grammes	6 grammes	0.5 gramme	—
	Olive Oil	28 c.cm.	—	—	28 grammes
	2 Eggs	—	—	16 grammes	12 grammes
	Butter	14 grammes	—	—	11.5 grammes
			22.5 grammes	44 grammes	146 grammes

This diet yields 62 grammes of glucose, 152 grammes of fatty acid and 1,586 calories.

## DIET VI.

Meal.	Items.	Quantity.	Carbo-hydrate.	Protein.	Fats.
Breakfast . . . . .	Broth	—	—	—	—
	Tea and Cream	28 c.cm.	—	—	10 grammes
	1 Egg	—	—	8 grammes	6 grammes
	Bacon	56 grammes	—	6 grammes	36 grammes
	Oatmeal (raw)	7 grammes	4.5 grammes	1 gramme	0.5 gramme
	Milk	56 c.cm.	3 grammes	2 grammes	2 grammes
	Butter	14 grammes	—	—	11.5 grammes
Dinner . . . . .	Broth	—	—	—	—
	Tea and Cream	28 c.cm.	—	—	10 grammes
	Fish	84 grammes	—	15 grammes	—
	5% Vegetables	112 grammes	4 grammes	0.5 gramme	—
	Olive Oil	14 c.cm.	—	—	14 grammes
	Onions	56 grammes	4 grammes	0.5 gramme	—
Tea . . . . .	Broth	—	—	—	—
	Tea and Cream	28 c.cm.	—	—	10 grammes
	5% Vegetables	168 grammes	6 grammes	0.5 gramme	—
	Olive Oil	28 c.cm.	—	—	28 grammes
	1 Egg	—	—	8 grammes	6 grammes
	Butter	14 grammes	—	—	11.5 grammes
	Onions	28 grammes	2 grammes	—	—
	Fish	56 grammes	—	10 grammes	—
			23.5 grammes	51.5 grammes	145.5 grammes

This diet yields 68 grammes of glucose, 152 grammes of fatty acid and 1,609 calories.

starvation: Carbo-hydrate ten grammes, protein ten grammes, fat ninety grammes, yielding 890 calories, eighty-five grammes of fatty acid and twenty-five grammes of glucose. The ratio — in this diet would be 3.4.

F.A.  
G.

I have given such a diet to begin with in the treatment of a considerable number of patients with diabetes whose urine was loaded with sugar and acetone bodies. After a few days the ketone bodies and sugar disappeared. The patient burned up the excess of sugar in his blood and in the process was able to consume the ketone bodies and the fat sup-

## DIET VII.

Meal.	Items.	Quantity.	Carbo-hydrate.	Protein.	Fats.
Breakfast . . . . .	Broth	—	—	—	—
	Tea and Cream	28 c.cm.	—	—	10 grammes
	2 Eggs	—	—	16 grammes	12 grammes
	Bacon	56 grammes	—	6 grammes	36 grammes
	Oatmeal (raw)	7 grammes	4.5 grammes	1 gramme	0.5 gramme
	Butter	14 grammes	—	—	11.5 grammes
	Milk	56 c.cm.	3 grammes	2 grammes	2 grammes
Dinner . . . . .	Broth	—	—	—	—
	Tea and Cream	14 c.cm.	—	—	5 grammes
	Meat	84 grammes	—	18 grammes	6 grammes
	5% Vegetables	168 grammes	6 grammes	0.5 gramme	—
	Onions	56 grammes	4 grammes	0.5 gramme	—
	Olive Oil	14 c.cm.	—	—	14 grammes
Tea . . . . .	Broth	—	—	—	—
	Tea and Cream	14 c.cm.	—	—	5 grammes
	5% Vegetables	224 grammes	8 grammes	1 gramme	—
	Olive Oil	28 c.cm.	—	—	28 grammes
	1 Egg	—	—	8 grammes	6 grammes
	Fish	56 grammes	—	10 grammes	—
	Butter	14 grammes	—	—	11.5 grammes
			25.5 grammes	63 grammes	147.5 grammes

This diet yields 75 grammes of glucose, 157 grammes of fatty acid and 1,681 calories.



## DIET VIII.

Meal.	Items.	Quantity.	Carbo-hydrate.	Protein.	Fats.
Breakfast . . . . .	Broth	—	—	—	—
	Tea and Cream	14 c.cm.	—	—	5 grammes
	2 Eggs	—	—	16 grammes	12 grammes
	Bacon	56 grammes	—	6 grammes	36 grammes
	Oatmeal	7 grammes	4.5 grammes	1 gramme	0.5 gramme
	Butter	14 grammes	—	—	11.5 grammes
Dinner . . . . .	Broth	—	—	—	—
	Tea and Cream	14 c.cm.	—	—	5 grammes
	Meat	112 grammes	—	24 grammes	8 grammes
	5% Vegetables	168 grammes	6 grammes	0.5 gramme	—
	Onions	56 grammes	4 grammes	0.5 gramme	—
	Olive Oil	14 c.cm.	—	—	14 grammes
Tea . . . . .	Broth	—	—	—	—
	Tea and Cream	14 c.cm.	—	—	5 grammes
	5% Vegetables	224 grammes	8 grammes	1 gramme	—
	Olive Oil	—	—	—	28 grammes
	2 Eggs	28 c.cm.	—	16 grammes	12 grammes
	Fish	112 grammes	—	20 grammes	—
	Butter	14 grammes	—	—	11.5 grammes
			25.5 grammes	86 grammes	150.5 grammes

This diet yields 89 grammes of glucose, 173 grammes of fatty acid and 1,800 calories.

plied in the diet. Of course such a diet is quite inadequate for the needs of any patient weighing more than thirty-two kilograms (five stone), but even in the case of a patient weighing fifty kilograms (eight stone), such an inadequate diet, if broth and tea be added to it and the patient kept at rest, is not very irksome. It is certainly preferable to starvation.

When the sugar and diacetic acid have disappeared from the urine, the glucose and fat content of the food is gradually increased daily, the aim being to give a diet that will yield thirty calories per kilogram and one gramme protein per kilogram and a glucose content that the patient is able to burn completely and in so doing to burn up the fat. But to accomplish this object you will find that the fat in the diet will be the chief source of the calories needed.

To those of you who have not been accustomed to think in calories and kilograms and to reckon diet according to its glucose and fatty acid contents, the suggestions offered may appear troublesome. Really they are quite simple, as our students can testify. This I can assure you: if you follow the treatment on the lines indicated your efforts will be rewarded.

I end this address with a quotation from Richet's address as President of the Physiological Congress in Paris in 1922: "Seek to understand things; their utility will appear later. First of all it is knowledge that matters."

The accompanying dietaries were given to a diabetic patient in the Royal Prince Alfred Hospital. He was admitted on April 17, 1923, with sugar, diacetic acid and acetone in his urine. His weight was 52.6 kilograms (eight stone, four pounds). Diet No. II. was given on April 22, 1923, when his urine was

free of sugar and acid. Diet No. III. was given on April 25, 1923; No. IV. was given on May 1, 1923; and No. V. on May 12, 1923. Nos. VI. and VII. were given on May 15 and 20, respectively, and No. VIII. on May 21, 1923. Sugar then reappeared, but no acid in the urine. His weight had increased in the interval to 55.5 kilograms (eight stone, ten and a half pounds).

The chief fatty foods and their carbo-hydrate, protein and fat content are given in the following table in terms of grammes per 28 grammes.

Food.	Carbo-hydrate.	Protein.	Fat.
Butter . . . . .	—	—	22.5 grms.
Cream (36%) . . . .	—	—	10 grammes
Cheese . . . . .	1 gramme	7 grammes	9 grammes
Olive Oil . . . . .	—	—	28 grammes
1 Egg . . . . .	—	8 grammes	6 grammes
Lard . . . . .	—	—	27 grammes
Bacon . . . . .	—	3 grammes	18 grammes
Ham . . . . .	—	4 grammes	8 grammes
Beef . . . . .	—	4 grammes	6 grammes
Lamb . . . . .	—	5 grammes	7 grammes
Fowl . . . . .	—	5 grammes	4 grammes
Sardines . . . . .	—	5 grammes	5 grammes
Peanuts . . . . .	6 grammes	6 grammes	10 grammes
Walnuts . . . . .	4 grammes	5 grammes	18 grammes

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## Reports of Cases.

### TETANUS.

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THE two following cases are reported in order to emphasize the value of early and intensive treatment by means of concentrated anti-tetanic serum, administered by the intrathecal and intravenous routes.

A female patient, aged sixteen years, a packer in a cigarette factory, while at work on April 20, 1923, received a perforating wound of the terminal segment of the thumb. The phalanx was fractured. On April 29 she felt her jaw becoming stiff and on the following day was unable to open her mouth sufficiently wide to eat. She was admitted to hospital on May 1, 1923. The incisor teeth could not be separated more than three millimetres and the muscles of the back of the neck were stiff and painful. An unsuccessful attempt was made to inject anti-tetanic serum into the spinal theca; 27,000 units were therefore given subcutaneously. On the following day 4,000 units were given by the intrathecal route and 75,000 units subcutaneously. On May 3, 1923, there was rigidity of the muscles of the jaw, neck, back and lower limbs. In addition the patient complained of pain and difficulty in breathing at times. This was caused, no doubt, by spasms of the muscles of respiration. On this day 8,000 units were given by the intrathecal method, 27,000 units intravenously and 25,000 units subcutaneously. The patient felt much better on the following day. The administration of serum was continued by injections into the subcutaneous tissues. The total amount of anti-tetanic serum given by the various methods was 250,000 units.

The bacillus of tetanus was not found in swabs or cultures from the wound.

It is a common mistake in diagnosis to confuse tetanus with hysteria. I have seen this mistake made and have heard of other instances in which it has occurred.

In this patient the first symptom was noted on the ninth day. I have recently seen records of two fatal cases of tetanus, the onset of symptoms occurred on the eleventh and twelfth days and death took place on the fourteenth and fifteenth days respectively.

W.T., aged fifty-one, a tent maker, while working in the country at 8.30 p.m. on March 14, 1921, fell and sustained a compound fracture of the bones of the left forearm near the wrist. He stated that the fracture was reduced and the wound stitched. On admission to Sydney Hospital on March 20, 1921, his temperature was 38.4° C. (101° F.) and his pulse-rate one hundred and eight per minute. A general anæsthetic was administered and free incisions were made into the forearm. A considerable quantity of pus was evacuated from the flexor tendon sheaths. Carrel's tubes were inserted. The forearm was not so swollen on the following day and there was less pyrexia.

During the morning of March 22, 1921, *id est* on the eighth day after the receipt of the injury, trismus was noticed and the patient said he did not feel so well and complained of pains in the back of the neck. Smears from the wound were examined in the pathological department and "terminal spored bacilli," probably tetanus bacilli, detected. Anti-tetanic serum was injected at 6 p.m. and as recorded below.

On March 24, 1921, there were noted very definite trismus, twitching of the muscles of the left arm and shoulder and stiffness of the neck. Two days later trismus was still present and the flexor muscles of the left arm were in a state of tonic contraction. On March 27, 1921, the swelling of the hand had increased. An anæsthetic was given and pus and gas were evacuated from incisions on the dorsum of the hand. In addition the wrist joint was the seat of a suppurative arthritis. As the general condition of the patient was becoming worse and the possibility of saving the hand seemed remote, an amputation was performed through the middle third of the forearm. Skin flaps were

reflected and the muscles divided by a circular incision. The wound was not sutured. Carrel's tubes were inserted and flushed alternately with peroxide of hydrogen and Dakin's solution. The following day the patient's general condition had improved, trismus was not so marked and a serum rash appeared. Rigidity of the muscles of the neck was still present on March 30, 1921.

On April 10, 1921, the patient could separate the incisor teeth to about one-third of the normal range.

A smear was taken from the wound on April 12, 1921, and fifteen micro-organisms per microscopic field were counted.

A partial secondary suture was performed on April 20, 1921, and Carrel's tubes were inserted for a few days. The patient was discharged from hospital on May 16, 1921.

During convalescence 4,500 units of anti-tetanic serum were given, the total number of units of tetanus anti-toxin injected being 298,500 units. The dates and sites of injection are given in the accompanying table.

Date.	Method of Injection.		
	Intra-thecal.	Intra-venous.	Intra-muscular.
March 22, 1921 ..	6,000	12,000	27,000
March 23, 1921 ..	1,500	46,500	12,000
March 24, 1921 ..	—	20,000	40,000
March 25, 1921 ..	3,000	30,000	30,000
March 26, 1921 ..	—	30,000	30,000
March 27, 1921 ..	3,000	—	—
March 28, 1921 ..	3,000	—	—
	16,500	138,500	139,000

It is of interest to note that during the war the following directions were issued by the "Adviser in Pathology," Head-Quarters, Lines of Communications.

1. Give large doses of anti-tetanic serum.
2. Give them early and persistently.
3. Use the intrathecal route up to its limit and supplement by additional doses given intravenously and hypodermically.

The average dose given in the first twenty-four hours in nineteen patients that recovered was 27,630 units.

A case was recorded to indicate the method of administration of anti-tetanic serum. The symptoms were controlled after 100,000 units had been given, the total number of units administered being 257,000. The number of units given during the first twenty-four hours of intensive treatment was 104,000.

Time.	Injection of Serum.	
	Dose.	Route.
3 p.m. . . . .	24,000 8,000	Intrathecal Intramuscular
Midnight . . . .	24,000 16,000	Intravenous Intramuscular
1 p.m. . . . .	24,000 8,000	Intravenous Intramuscular
10.30 p.m. . . .	24,000 12,000 12,000	Intrathecal Subcutaneous Intramuscular

The above seems to be a very good example of the result of intensive treatment with anti-tetanic serum as the case was twenty-eight hours old before treatment started and was rapidly getting worse.

## Reviews.

## THE ANATOMY OF THE FEMALE PELVIS.

DR. F. A. Maguire, a graduate of the University of Sydney and now a teacher at his *alma mater*, has published a small book on the anatomy of the female pelvis.<sup>1</sup> This fact is of importance, since the time has arrived when Australian students of medicine should find the beginnings of a library of home-made text books. This book has been compiled from lectures delivered to third year medical students in anatomy and to senior students in gynaecology, with the object of collecting under one cover the information needed for a thorough understanding of gynaecology. We have for several years maintained that the fundamental sciences should be taught to a large extent in direct connexion with the special application of this knowledge. Dr. Maguire has therefore achieved two important advances. We note with gratification that this book has already been adopted by teachers in our medical schools.

The anatomical portion is very thorough and systematic and is written in easy style. The first subject is the pelvic wall. Then there is a chapter on the muscles, a very important chapter containing valuable information compressed into small compass. The chapters on the pelvic fascia, the urogenital diaphragm and the pelvic peritoneum together provide data essential for all contemplating the surgical treatment of gynaecological conditions. The interposition of a chapter on the pelvic viscera in general renders this part of the subject more readily understood. The blood vessels and lymphatics, the supports of the uterus, the uterus itself and its tubes, the ovaries, the vagina, the vulva and the other pelvic organs receive adequate treatment, each in its proper place. In addition there are special chapters on the genital organs in infancy and in old age, on the structures lying between the layers of the broad ligament, the ureters, bladder and urethra, the pelvic colon, rectum and anal canal and the ischio-rectal fossa. Some improvement might be made by the introduction of drawings of dissection of the parts described in addition to or in place of the crude diagrams. We would also suggest that the correct accents be employed in the names of anatomists, such as Rosenmüller and Gärtner.

Chapter XX. is reserved for what is usually termed applied anatomy. The teaching is clear and concise and the student will have no difficulty in grasping the immediate importance of accurate topographical knowledge in surgical work. The last chapters are entitled "The Anatomy of the Physical Examination" and "Summary of Gynaecological Examination." The latter has been taken from the lectures of Dr. Fournier Barrington. It adds materially to the value of the book.

The printing and paper are good, although the printers could have rendered their work more pleasing, had they adopted a more consistent plan for the display of captions. The size of the volume is suited to its primary use, namely for the student in the time when he is applying himself to the problems of diseases of women. The book will also be found of undoubted assistance to gynaecologists in practice, when anatomical knowledge requires refreshing from time to time. Dr. Maguire may be congratulated on an excellent achievement.

## HYGIENE OF THE WAR.

It is a matter of the highest importance that the methods evolved during the recent war for the fulfilment of the duties and functions of the medical services should be col-

lated and recorded, not only so as to be available for future warfare, but in order that the improvements and discoveries both in method and material applicable to civil life may be ready to hand in convenient form, for the information of the medical profession. The editors of the "History of the Great War Based on Official Documents: Medical Services" are to be congratulated on the admirable manner in which this extraordinarily difficult task is being tackled, as evidenced by the issue of the two latest volumes of the series, dealing with the "Hygiene of the War."

Even to those who spent some years on active service and were concerned with the problem with which these volumes deal, it must come as a pleasant surprise to observe on what broad and sound lines the compilation of this portion of the history has been carried out and how complete were the means adopted to carry out the principles of hygiene in all kinds of climes and under every imaginable combination of difficulties. The hygiene of the war is of especial interest at the present time when more than customary attention is being paid to preventive medicine, especially as the *motif* of the coming Australasian Medical Congress is prevention of disease.

In all past wars disease has been a greater cause of loss of man power than have battle casualties, a lesson that has always to be re-learned, and in the preface the saving of strength by the control of typhoid fever is quoted. In the South African War, one in nine contracted this disease; in the recent war one in five hundred, or less than the total deaths in the South African War in which our troops were so much inferior in numbers.

Volume I. has reference to the human machinery and organization for sanitary control, the purification of water, the disposal of waste materials and the housing and clothing of the soldier. Volume II. is concerned with food requirements, diseases due to food deficiencies and the prevention of certain special diseases. They are essentially books of reference and contain much of interest to the physiologist, the administrator and the specialist in preventive medicine. In the chapter on organization in the field it is noted that at the end of the war the trained sanitary personnel who correspond to the sanitary inspectors of civil life, numbered 17,000. Owing to the shortage of medical men many of the officers commanding sanitary sections in the British Army were not medical practitioners, a practice not followed in the Australian Army. An account is given of the School of Hygiene established to give training in the sanitary methods and appliances employed in the different campaigns. All soldiers were instructed before embarkation and specialists were trained in these schools. The purification of water is fully described, details of the more complex methods being given in appendices. At the beginning of the war water tanks provided with filter candles were in use, but these were soon found to be unsatisfactory and chlorination of all drinking water became the routine measure. The provision of the simple Horrock's box came as a boon to prevent over-chlorination which earned so much opprobrium, often undeserved, for the medical services. In addition to regimental outfits for testing for poisons (greatly expected but rarely found) large water sterilizing and poison removing plants were provided. The special problems of water supply in the different theatres of war are described. The great work of the water tank companies in France and Belgium is detailed. In Egypt and Palestine where the whole campaign hung on the provision of a sufficiency of pure water a vast organization quickly grew up. The main water supply was drawn from the Nile through the polluted irrigation canals. To this was added water from desert wells, some of great age and impurity. It is noted that water with as high a salinity as 300 parts per 100,000 was

<sup>1</sup> "The Anatomy of the Female Pelvis, Descriptive and Applied," by F. A. Maguire, D.S.O., M.B., Ch.M. (Syd.), F.R.C.S. (Eng.); 1922. Sydney: Angus & Robertson, Limited; Crown 8vo., pp. 115, with four illustrations. Price: 6s. net.

<sup>1</sup> "History of the Great War Based on Official Documents: Medical Services—Hygiene of the War," Edited by Major-General Sir W. G. Macpherson, K.C.M.G., C.B., LL.D., Colonel Sir W. H. Horrocks, K.C.M.G., C.B., and Major-General W. W. O. Beveridge, C.B., C.B.E., D.S.O., K.H.P.; Volumes I. and II.: 1923. Edinburgh, 120, George Street: His Majesty's Stationery Office; Demy 8vo., pp. xii. + 400 and 506, with illustrations in the text and diagrams interleaved. Price, post free: 22s. net each volume.



used as drinking water, though 150 parts was considered a maximum for potability. A taste among the troops for slight salinity in tea was noticed while horses which drank water up to 500 parts per 100,000, came to prefer brackish water. Several typographical errors in the names of places occur in this chapter. An interesting chapter by Dr. Hume, Director of the Geological Survey of Egypt, on the geology of the water supply in Sinai shows how the positions and dispositions of the Army followed his investigations and deductions. The special features of water supply in Mesopotamia, Italy, Macedonia and Northern Russia are described in separate chapters.

The complex methods required to deal with waste products which comprise faeces and organic refuse, are made necessary to check fly breeding and their disease carrying activities. The modifications of these methods entailed by the varying conditions at home, at seaport bases, on the lines of communication, at the front under conditions of trench warfare and in sandy arctic or rocky country are fully explained and helpfully illustrated by diagrams and photographs.

In connexion with the account of the housing of the soldier useful plans of rapidly constructed hut and tent hospitals are included which might be of value in time of emergency. There is a detailed account of the clothing supplied to the soldier to minimize the effects of cold and wet in the trenches, of heat, sand and snow glare, of mosquitoes and other insects.

The fitting of transports which owing to the vast numbers of troops carried was necessarily very different to that of peace time, is fully considered. Plans in regard to this subject are given.

In Volume II, an exposition is made of the important research carried out on food values and energy expenditure. The activities of enemy submarines made the question of food supply such a vital matter to the nation. It became essential to know what was the minimum food required for the Army which included individuals carrying out widely varying amounts of physical work. It was first necessary to know the food values. Atwater and Bryant's tables were the basis of calculation till 1917 when it was found necessary to obtain large supplementary analyses, which were carried out by Plimmer, Cathcart and Orr. These observers investigated with meticulous care the energy expenditure of troops of different ages in training, resting and in the field. Their investigations are given in full. They found that the food value of 3,500 calories for men at home appeared to be too low to an extent of 400 or 500 calories and that 3,700 calories for nineteen-year-old boys allowed nothing for growth. The scale was too low to allow anything for emergency, but could not be improved. On the outbreak of war the scale was 4,500 to 4,600 calories at home. It was similar in France, but by the end of the war had been reduced to 4,100. Very full tables of diet values are given.

This war is said to have been unique as regards the feeding of the troops. The value of hot food was recognized early and the ingenuity shown in providing it in the trenches is most interesting.

One of the benefits arising from the war was the knowledge of the cause of food deficiency diseases. We see the value of research work carried out in London by Chick and Hume at the far-seeing suggestion of C. J. Martin applied to troops in Mesopotamia in the prevention of beri-beri. The details of prevention of scurvy are similarly included.

Separate chapters are given to the accommodation of and rations of prisoners of war, to the working of the physical test station at Edinburgh and to the hygiene laboratory at Boulogne. In the chapters on prevention of specific diseases malaria, cerebro-spinal fever, trench foot, scabies, bilharziosis, trachoma, small-pox and plague are considered, as well as the prevention of lice and flies.

Referring to malaria the statement is made that "the loss of strength in armies in peace as well as in war far

exceeds the losses from any other disease." The experiences of this war in Macedonia, Palestine and East Africa bear out this view. The modes of attack on the mosquito now so familiar to many Australians is well described, as well as other preventive measures.

Full details of the incidence of cerebro-spinal fever and the methods of prevention shown by experience to be most efficacious are given. The loss of military efficiency from this disease was negligible, but that arising from segregation of contacts and carriers was quite appreciable. It is interesting to learn that the main methods of prevention utilized in 1914 followed the instructions of a commission appointed in 1857 after the Crimean War to deal with the sanitary conditions of the Army. Intervening advances in science have only demonstrated the soundness of these instructions based entirely on experience and it was thought that if these instructions could have been acted on thoroughly, there would have been very little cerebro-spinal fever. If the methods employed to prevent that new war condition, trench foot, had been suggested prior to the war, they would undoubtedly have been received with shouts of derision. Yet the provision of gum boots, clean socks every twenty-four hours, appliances for drying footwear and careful toilet of the feet were soon the routine in the trenches in the winter. These and other methods described were necessary and unremitting attention by medical and regimental officers to the feet of their men were largely responsible for keeping down the loss by trench foot.

The prevention of flies problem is well treated. When it is realized that a female fly lays from six hundred to nine hundred eggs which may hatch out in six days in favourable conditions of heat and moisture, the difficulty of preventing breeding in desert country, where fuel for incineration is lacking and burying of refuse useless, may be imagined. In some medical units it was calculated that 50% of admissions to hospital were due to uncleanness and vermin. The means for lice disinfection which required so much personnel and equipment, are discussed. Of the lice-borne diseases the incidence of typhus fever and relapsing fever was negligible, but trench fever—another scientific discovery of the war—was responsible for considerable sickness.

It is refreshing to learn of the successful scientific investigation of scabies. As it became apparent that scabies was causing too much wastage, an inquiry was conducted into the life history of the parasite and the mode of spread of the disease and it was discovered that Hebra's statement that it was not spread by blankets and clothes was incorrect. On this were based the methods of prevention.

Among many advantages the war brought to Egypt, none was greater than the discovery of the whole life history of the parasite causing bilharziosis, of its channels of infection and of the treatment of this disease. To Leiper falls the main credit, but the investigations of Fairley on the channels of infection and destruction of the cercaria in water are mentioned, though his equally valuable work on complement fixation does not find a place.

The successful methods of preventing spread to the white troops of trachoma from the Chinese and Egyptian Labour Corps in which it was rife, occupy a chapter. In the chapter on small-pox some useful figures are quoted which might interest the anti-vaccinationist. The disability under which the medical authorities laboured in Mesopotamia, where small-pox is endemic, owing to the necessity of obtaining a soldier's consent before he is vaccinated, is apparent. Fortunately vaccination and inoculation were compulsory in the Australian Imperial Force whenever deemed necessary. Plague prevention is described, but without breaking new ground. Appendices concerning the prevention of spread of disease by prisoners of war and the prevention of cerebro-spinal fever, trench foot and small-pox complete the volume.

Though these books are not very attractive in appearance and the paper is not of uniform quality the print is clear and easy to read and the index complete.



## The Medical Journal of Australia

SATURDAY, AUGUST 4, 1923.

### The General Medical Council and Advertising.

THE first business of the General Council on Medical Education and Registration at its summer session on June 1, 1923, was the consideration of a report from its Executive Committee on the expediency of amending the Council's Warning Notice with reference to advertising and canvassing. It will be remembered that on December 1, 1922, Dr. R. A. Bolam called the attention of the General Medical Council to the prevalence of certain obscure or indirect methods of advertising that had become exceedingly common among medical practitioners. This matter was discussed in THE MEDICAL JOURNAL OF AUSTRALIA of February 10, 1923. Among the special forms of advertising mentioned by Dr. Bolam were the announcement of changes of address in lay newspapers, the publication in newspapers of articles or letters on matters of current public importance over the name, address and qualifications of a medical practitioner, the appearance of notices concerning the illness of prominent persons, containing the name and at times the opinions of the attending medical practitioners, the insertion of announcements in newspapers to the effect that medical practitioners receive patients at given addresses, the publication of interviews by newspaper men with medical practitioners, sometimes adorned by the portraits of the offenders and the publication in lay periodicals of the views of medical practitioners on medical matters. The motion attracted considerable attention at the time and it would appear that it has been effective in reducing the frequency of this kind of cloaked advertising in England. The General Medical Council has now amended the Warning Notice, in order that persons guilty of flagrant offences of this nature may be dealt with by penalty, while those who by carelessness or a lack of precaution do not prevent the appearance of the less glaring

advertisements, may be called upon to defend themselves and receive a warning from the Council. The amended Warning Notice is in the following terms:

The practices by a registered medical practitioner—

(a) Of advertising, whether directly or indirectly, for the purpose of obtaining patients or promoting his own professional advantage; or for any such purpose of procuring or sanctioning or acquiescing in the publication of notices commending or directing attention to the practitioner's professional skill, knowledge, services or qualifications or deprecating those of others; or of being associated with or employed by those who procure or sanction such advertising or publication; and

(b) Of canvassing or employing any agent or canvasser for the purpose of obtaining patients; or of sanctioning or of being associated with or employed by those who sanction such employment,

are in the opinion of the Council contrary to the public interest and discreditable to the profession of medicine and any registered practitioner who resorts to any such practice, renders himself liable on proof of the facts to have his name erased from the *Medical Register*.

It will be recognized that the terms of this notice are wide and elastic and will be found to cover all those offences indicated by Dr. Bolam. That the statutory body, entrusted with the care of the public interest in connexion with medical practice and the safeguarding of the dignity and honour of the medical profession, takes a serious view of all forms of advertising by medical practitioners, including the appearance of letters on general subjects signed by a practising member of the profession, is unmistakeable.

Many of the offences quaintly described by Dr. Bolam in the now almost hackneyed term "oblique" advertising are common in Australia. The least objectionable form, namely the announcement of a change of address, is sanctioned under strict conditions by the several Branches of the British Medical Association in Australia, probably because the practice had become general before any body in authority was in a position to deal with it. The mention of the name of a medical practitioner in connexion with an illness of a prominent citizen in a daily or other lay paper is almost of daily occurrence in all parts of the Commonwealth. It is frequently urged that these advertisements are in-

serted without the sanction or consent of the medical practitioners concerned. The General Medical Council has now intimated through its amended notice that it has the right to require such practitioners to answer the charge of advertising and to show that they took reasonable steps in an endeavour to prevent the misuse of their names in this connexion. It is apparent that medical authors of signed letters or articles in the lay press who indicate in the course of such communications either directly or indirectly that they are medical practitioners, will have difficulty in inducing the General Medical Council in England to take a lenient view of the offence. And it is reasonable to claim that the ethical standard of the medical profession must be kept at the same high level in Australia as in England.

On the previous occasion it was pointed out in these columns that the Medical Boards in Australia, with the exception of that of New South Wales, have not the legal power to investigate charges of unprofessional conduct and to deal with offenders by the removal of their names from the medical registers. That this matter is one that affects the public interest almost as deeply as it does the interest of the profession will not be questioned. There seems to be no prospect of attaining uniformity of the medical acts in the six Australian States. We therefore again emphasize the desirability, nay, necessity of strong action with a view to the transference of the control of medical registration from the State authorities to the Federal Authority and the introduction of a uniform medical act for the whole Commonwealth not less protective than the New South Wales Medical Act.

### Current Comment.

#### OSTEITIS FIBROSA.

THE student who would investigate the condition known as *osteitis fibrosa*, cannot fail to be struck by the vagueness which surrounds the whole subject. *Osteitis fibrosa* may be defined as a disease of bones in which the marrow undergoes a change and is replaced by fibrous tissue. This change may be confined to one bone or it may affect the whole skeleton. As the disease progresses, portion of the fibrous tissue usually undergoes ossification. In this way, if the ossification is sufficiently extensive, a spontaneous cure may occur. At the same time

there is a tendency for the formation of cysts. A general disease of this nature affecting the whole skeleton was first described by Hirschberg in 1889. He regarded it as osteomalacia with cyst formation. It was von Recklinghausen who two years later described the disease under the name of *osteitis fibrosa*. He drew attention to the bone transformation into fibrous tissue, the deposition of new bone, the deposition of cartilage and the tendency to the development of cysts and giant-celled sarcomata. Apparently much of the confusion has arisen around the question of the cyst formation. Virchow attributed what was probably such a cyst to the degeneration of a chondroma. Beck described one as being traumatic in origin. Von Mikulicz held that the cysts were due to an innocent disturbance of the growth of bones. Mönckeberg opposed the view held by von Mikulicz and maintained that the condition in several instances described by him was identical with the condition as described by von Recklinghausen. Other observers have thought that the cysts so often associated with fibrous changes in bone were of the nature of neoplasms. It is interesting to note that von Recklinghausen placed the cysts associated with *osteitis fibrosa* in the same category as those associated with *osteitis deformans* and osteomalacia. Bloodgood in an important study of bone cysts in 1910 did much to throw light on the condition of *osteitis fibrosa*. His classification of the various cysts in bone is very complete. In one group he included those which have a definite relationship with *osteitis fibrosa* and distinguished them as single cysts with a bony shell and no connective tissue lining, cysts with a definite connective tissue lining, one or more small cysts in a mass of *osteitis fibrosa*, a bone shell filled with a solid mass of *osteitis fibrosa* and multilocular cysts. It is interesting to note that in describing the histology of *osteitis fibrosa*, he stated that there was a presence of inflammatory tissue in the medullary cavity of bones. He also stated that he had not seen giant cells present in sufficient numbers to characterize the picture as giant cell sarcoma. *Osteitis fibrosa* was the subject of the Hunterian lecture delivered recently before the Royal College of Surgeons of England by Mr. R. Lawford Knaggs.<sup>1</sup> Mr. Knaggs has chosen to classify the various forms of the disease from the clinical aspect. He points out that it may arise by extension from a joint affection or as a result of septic irritation. Taken as a primary affection, Mr. Knaggs divides *osteitis fibrosa* into those forms in which the lesion is represented by a uniform mass of fibrous tissue, those in which a solid mass is showing signs of degenerating into one or more cysts, those in which much bone is developed and the disease shows some signs of coming to an end and those in which single cysts occur. Mr. Knaggs reviews briefly several cases in each group and describes the histological appearances associated with them. He sums up the histological appearances as being more or less constant. His findings may be summarized as follows. The ordinary bone marrow is replaced by a dense vascular connective tissue. This is com-

<sup>1</sup> The British Journal of Surgery, April, 1923.

posed of fusiform or branched cells with outrunning processes. It may resemble ordinary fibrous tissue or assume a whorled arrangement. All the fat disappears. The osseous framework is displaced by this connective tissue. There is little evidence of the way in which the bone is destroyed. Scattered foci of new bone form in the connective tissue replacement. These grow into trabeculae which coalesce and form sclerosed masses of bone. Ossification begins either by metaplasia of small patches of connective tissue or by deposit of calcareous granules around a connective tissue cell. An intermediate stage of cartilage in the ossifying process occurs on very rare occasions. The origin of cysts is not very clearly traceable. There is sometimes a tendency for connective tissue to pass into a state of necrosis. This may be seen, however, in tissue in which there is no cyst formation. There is a complete absence of small celled infiltration met with in the more acute forms of inflammation.

In considering the pathogenesis of *osteitis fibrosa*, Mr. Knaggs says that possibly some change occurs in the bone which renders its removal necessary. In looking for the cause of this change, he lays the blame on bacterial toxins in the case of *osteitis fibrosa* by local extension. By analogy, he postulates the formation of toxins to explain all forms of the disease. Having postulated this, he proceeds to elaborate a theory which he apparently accepts. He states that toxic substances may originate from micro-organisms, from tissue metabolism or from intestinal sources. He gives no indications of the chemical constitution of these hypothetical substances nor does he adduce any evidence of their presence in the blood or in the tissues. The term toxin is usually employed to designate the poison elaborated by certain bacteria, such as diphtheria or tetanus bacilli. Mr. Knaggs apparently intends to include in the term the so-called endotoxins, intermediate products of the dissociation of food stuffs, in so far as these may be deleterious, and chemical poisons derived in the process of tissue metabolism. To substantiate so strange and bizarre an assumption, it becomes necessary for the exponent to define the substances in chemical terms. As Mr. Knaggs fails to do this, his doctrine must be refused. Again he makes the statement that it is important to realize that toxins are not necessarily specific in the same sense as pathogenic micro-organisms. If he would signify by this that the exotoxins of bacteria are non-specific, his statement is untrue. If he means other poisons, substances of unknown nature and origin, the statement is childish and futile.

Instead of hazarding guesses and building up assumptions on doubtful hypotheses, it were better to adopt the outlook of Elmslie in this regard. Elmslie studied this disease and published the results of his work in 1914. He went so far as to state that it would be better to state frankly that it was not possible to arrive at a decision as to whether *osteitis fibrosa* was one disease or several. He said that there was no definite evidence that the lesions were of inflammatory origin and for this reason he preferred to use the name fibro-cystic

disease of the bones as applied to the condition. He concluded that there was probably a general disturbance of the processes of growth or alteration in bone.

#### TONSILLECTOMY IN ADULTS.

In his inaugural address to the members of the Section of Paediatrics of the New South Wales Branch of the British Medical Association, Dr. C. P. B. Clubbe discussed *inter alia* the question of tonsillectomy in children. He enunciated his own views and quoted those of other competent observers to the effect that the tonsils should not be removed without due consideration, in view of their inherent function in the protection of the body against certain infections. This matter was again referred to in the pages of this journal in regard to the work of Hambrecht and Nuzum on the histology and bacteriology of the tonsils. Dr. Walter C. Alvarez has recently investigated the question of tonsillectomy in adults.<sup>1</sup> It is a matter of common experience that many patients have been submitted to the operation in question on purely empirical grounds. It is an equally common experience that in many individuals the results hoped for from tonsillectomy have not been obtained. Dr. Alvarez investigated the results of tonsillectomy in upwards of three hundred individuals whom he saw in his consulting rooms. Of seventy-six persons operated on for recurrent tonsillitis fifty-seven claimed that the result was good. The remainder were all definitely improved. Of seventy-two persons with some tonsillitis and "sore throat" twenty-three claimed a good result, thirty-three were definitely improved and sixteen were not improved. Of one hundred persons who had no tonsillitis, but were operated on for other reasons, three claimed a good result, sixteen showed some improvement and the remainder received no benefit. Dr. Alvarez gives a list of the conditions for which tonsils were removed. It is a long one and includes constipation, dizziness, nervousness and insanity. It is interesting to note that of forty-seven persons suffering from "rheumatism," seven claimed a good result, five obtained some relief, thirty-one obtained no relief and the remainder were either relieved temporarily or became worse. Dr. Alvarez states that he is driven to the conclusion that many diseases cannot be influenced by the removal of focal infections, no matter how thoroughly it is done. He also says that in many patients suffering from arthritis the joints themselves represent foci of infection. In his conclusions, Dr. Alvarez states that it is not so much what the tonsil looks like as what it does that counts. The patient will not receive much benefit unless he suffers from repeated attacks of tonsillitis. A patient with repeated tonsillitis will always be grateful for the operation, even if he obtains no relief from other troubles.

In the present time when the adherents of the focal infection theory are so insistent on their views, it is well that men like Dr. Alvarez should take up the conservative attitude and utter a note of caution and warning.

<sup>1</sup>The Journal of the American Medical Association, May 26, 1923.



## Abstracts from Current Medical Literature.

### DERMATOLOGY.

#### Herpes Zoster Generalisatus.

M. PAROUNAGIAN AND HERMAN GOODMAN (*Archives of Dermatology and Syphilology*, April, 1923) report an instance of *herpes zoster generalisatus*. The authors are of opinion that *herpes zoster generalisatus* has been unknowingly described by different observers, who have reported a considerable number of conditions which they thought were a combination of *herpes zoster* and varicella. They place *herpes zoster* and generalized vesicular eruptions in four classes: (i.) *Herpes zoster* in one patient followed by varicella in others exposed to that patient; (ii.) *herpes* followed by varicella-like eruptions in the same patient (iii.) *herpes* followed by varicella in the same patient and followed by varicella in others exposed to that patient; (iv.) varicella in one patient followed by *herpes zoster* in those exposed to that patient. The authors are of opinion that the generalized eruption accompanying *herpes zoster* is a clinical entity and that it is separate and distinct from a fortuitous association of *herpes* and varicella.

#### Erosive and Gangrenous Balanitis.

J. BRAMS AND I. PILOT (*Archives of Dermatology and Syphilology*, April, 1923) report an instance of erosive and gangrenous balanitis which, they state, was probably due to infection. Practically the only reference made to this not uncommon disease is the statement made by Bataille and Berdal in 1889, that it is caused by a symbiosis of a spirochæte and a vibrio. Saliva contact was thought to be necessary for the introduction of the vibrio, but the instances reported do not present a history of any unnatural sexual acts or saliva contact of any kind. The symptoms of both the erosive and gangrenous types are practically the same, except that the latter are more severe and produce greater constitutional reaction. Early recognition and treatment are imperative as the condition spreads with great rapidity. Palliative measures, such as soaking the penis in hot water or hot sitz-baths and irrigating the preputial sac with potassium permanganate and hydrogen peroxide usually suffice in the early stages.

#### Hair and Growth Stimulants.

MILDRED TROTTER (*Archives of Dermatology and Syphilology*, January, 1923) has carried out experiments over a period of eight months with a view to determining whether the application of cold cream, sunburn or shaving stimulated hair growth. Observations on the normal growth of hair are recorded. No effect on the growth of hair from the application of petrolatum, from exposure to sunburn or from shaving, could be found.

#### A Pathogenic Acid-fast Actinomycete.

D. J. DAVIS AND O. GARCIA (*Archives of Dermatology and Syphilology*, January, 1923) isolated a filamentous branching organism from a woman who complained of subcutaneous abscesses caused by the pricks of rose thorns. The organism grew well on all media and was definitely aerobic. They found that the organism was decolorized by the Gram method of staining and was not acid-fast, but that on extracting the fatty substance the staining properties became reversed. It was found to be pathogenic to animals and is rarely transferred directly from individual to individual.

#### Epithelioma of the Auricle.

D. MONTGOMERY AND G. CULVER (*Archives of Dermatology and Syphilology*, April, 1923), in a comparison of epitheliomata of the lips and of the ear incident to sex, age and relative frequency, found that the lower lip is more frequently affected than the ear. The average age for cancer of the lip was sixty years, while it was fifty-three for cancer of the lip. Males were more liable to be affected than females owing to exposure and tobacco smoking. The type of growth in the auricle was mostly basal celled. Radiotherapy is the most satisfactory treatment.

#### Jaundice in Arsenical Medication.

L. CHAGRIN AND S. ORZEL (*Archives of Dermatology and Syphilology*, April, 1923) made a series of observations in patients undergoing arsenical medication. This was done with a view to detecting an increase in the amount of bilirubin in the blood serum which would indicate injury to the liver cells. Quantitative and qualitative tests were made. Of a total of eighty-two patients sixty-nine developed neither jaundice nor an increase in the bilirubin, fourteen developed a definite increase in the bilirubin. This appeared in about three to five weeks, the increase being progressive with each added administration of arsphenamin. Eleven of these showed a gradual diminution on terminating the treatment.

#### Lichen Nitidus.

W. TRIMBLE AND E. MOLONEY (*Archives of Dermatology and Syphilology*, April, 1923) report two instances of *lichen nitidus*. The eruption consisted of small, flat, shiny, polygonal or round papules. These were the same colour as that of the surrounding skin and varied in size from a pin point to a pin's head. They were closely packed but discrete and had not caused any subjective symptoms. They resembled minute warts, although, instead of standing out from the surface, they extended into the cutis. In all but one of the reported cases in literature the penis was affected. Histologically they presented the picture of a granuloma. From the response of the tuberculin reaction in several cases the authors are of the opinion that the condition is associated with tuberculosis. Fractional doses of X-rays were advised in the treatment.

#### Bullous Impetigo Contagiosa.

F. C. KNOWLES AND H. G. MUNSON (*Archives of Dermatology and Syphilology*, March, 1923), after a brief review of *bullous impetigo contagiosa* in infants, as reported by various writers, give the details of several instances of the condition as it appeared in their own hospital. Each baby was attacked a few days after birth, the lesions being scattered over the body and face. The authors state that the mortality is not great unless the mucous membranes are involved, when it may be as high as 50%. Bacteriological study of the condition seems to point to the *Staphylococcus pyogenes aureus* as the main ætiological factor.

#### Sporotrichosis.

EARL D. CRUTCHFIELD (*Archives of Dermatology and Syphilology*, February, 1923) writes on the subject of sporotrichosis. The sporothrix was first discovered by Schenk in 1898. It has been found in the lungs and mouth, in the nasal discharge of persons and domestic animals and in the blood of animals suffering from sporotrichosis. The histo-pathology is that of an infectious granuloma, the characteristic features being similar to blastomycosis, tuberculosis, syphilis and other granulomata. Evidence of tissue reaction was found in necrosis in the more advanced areas of the lesions. Giant cells, epithelioid cells and fibroblasts are usually present. The appearance of the double contoured spore is typical. Treatment consists in the internal administration of potassium iodide, the application of X-rays, the injection of iodine and recourse to surgery.

#### Ringed Hair.

LEE D. CADY AND MILDRED TROTTER (*Archives of Dermatology and Syphilology*, September, 1922) have studied the question of ringed hair. Only eighteen instances of this condition have been reported. To the unaided eye ringed hair shows alternate dark and light segments; the end of each segment is sharply defined. Microscopically the hair is seen to preserve a uniform diameter throughout its length and tapers towards the tip, as in normal hair. The ringed appearance is due to gas-filled interstices in the cortex and the medulla of the hair. The condition occurs in normally pigmented hair and in hair which has turned grey as a process of senescence. There is no evidence that it is caused by any pathological process. It may be transmitted by heredity from one generation to another.

#### Pituitary Gland Dystrophies.

LESTER HOLLANDER (*Archives of Dermatology and Syphilology*, May, 1923) reports two instances of *dystrophia adiposa genitalis* with definite skin pathology in which the presence of an endocrine disturbance could be established. This condition may develop in infancy or during adult life and can be recognized by definite obesity and delayed development or atrophy of the genitalia.



## RADIOLOGY.

## Pyelography.

J. THOMSON WALKER (*Archives of Radiology and Electrotherapy*, April, 1923) discusses pyelography. The first solution used for this work by the author was "Collargol," but this solution and thorium nitrate (15%) have been abandoned in favour of sodium bromide or sodium iodide in a 20% to 2% solution. The shadows thrown by these solutions are not quite as dense as the "Collargol" shadow, but give quite satisfactory results. The bromide solution keeps indefinitely and can be sterilized by boiling; it is likely to be irritating in solutions stronger than 20%. No anæsthetic is used as, owing to the colicky pain produced by over-distension, the patient will be able to indicate when the pelvis is distended. The solution is withdrawn by a suction syringe after the examination. Small catheters are recommended; these are passed until arrested and then withdrawn one centimetre before the injection is made. The necessary skiagrams are taken with the patient in the usual kidney position. In interpretation the author considers the size and shape of the pelvis. Normally this is a trumpet-shaped shadow set vertically on the upper end of the ureter with the calyces projecting in a lateral and antero-posterior direction. The normal calyces have a narrow neck and expanded cup-shaped end. The expansion of the ureter into the pelvis is gradual and there is nothing to mark the point of junction. The author then describes various abnormalities due to obstruction and illustrates the various appearances by skiagrams. He recommends lateral skiagrams especially when a possibility of confusion with gallstone shadows exists.

## Dilatation of the Colon.

DOUGLAS FIRTH and KENNETH PLAYFAIR contribute an article on congenital idiopathic dilatation of the colon (*Archives of Radiology and Electrotherapy*, April, 1923). This condition which was first described by Hirschsprung in 1886, is rare, but it has features which render its recognition more or less easy. Megacolon from bands and adhesions low down in the bowel must not be confused with Hirschsprung's disease which is a dilatation and hypertrophy of the large intestine due to a cause as yet obscure, but apparently congenital in origin. The rectum and pelvic colon are most constantly affected, but the whole colon may be involved. Mechanical, neuropathic and inflammatory causes have been suggested, but the weight of evidence indicates a congenital origin. Males are more frequently affected than females in the proportion of five to one. The onset is generally during the first year of life or in the early years of infancy. Great abdominal distension and visible peristalsis occur with colicky pain, diarrhoea or constipation alternating with diarrhoea. Later emaciation occurs. The authors' patient was a boy of ten years. He was examined

by both opaque meal and enema and the typical dilatation of the sigmoid colon and rectum is illustrated in the skiagram reproduced.

## Gastric Radiography.

W. J. MAYO, in the course of an article on radical operations of the stomach (*Surgery, Gynecology and Obstetrics*, April, 1923), refers to the value of radiography in gastric diagnosis. He recalls the fact that the skiagram is only a shadow picture and not a picture of the lesion itself. The skiagraphic findings must be correlated with the clinical findings in order to attain the greatest usefulness. In expert hands radiography will give correct diagnoses in from 90% to 95% of instances. Mayo does not consider that the skiagraphic findings are sufficient to enable an observer to decide whether a lesion is operable. Often an extensive involvement of the greater curvature proves quite operable when the radiographic appearances suggest inoperability. The author considers fixation of the gastric shadow to be a sign of inoperability in most instances.

## X-Rays and Health.

GEORGE E. PRAHLER (*American Journal of Roentgenology*, October, 1922) details his investigations on the effects of X-rays and radium on the blood and general health of radiologists. Five deaths from aplastic anemia which have recently occurred amongst radiologists, stimulated the author to investigate various effects of radiation on the human body. Reference is made to the work of Mothram in London on the effects of radiation on men, which showed that there was only a slight diminution in red cells. Undue exposure to X-ray or radium is associated with a leucopenia, a relative lymphocytosis and polycythemia and occasionally an eosinophilia. Low blood pressure is frequently found in radiologists while the asthenia complained of is probably due to the strenuous and concentrated work of this specialty. Skin changes are rarer in the modern workers and can apparently be avoided if sufficient care is exercised. If a dental film is carried in the pocket for fourteen days and is definitely fogged or blackened, protection is insufficient and should be increased.

## Small Pneumothorax.

J. C. THOMPSON and NATHAN BARLOW (*American Journal of Roentgenology*, April, 1922) contribute a paper on the technique necessary for demonstrating the presence of a small pneumothorax. Unless a pneumothorax is large, it is likely to be overshadowed by other lung markings and is not readily demonstrated in skiagrams and so the authors recommend the taking of stereoscopic plates with differing times of exposure. When fixed in the stereoscope, the dark plate predominates and gives penetration and contrast, while the light plate carries the detail of the pleura and the lateral part of the lung. Intensifying screens are not recommended. The authors use fifty milliamperes of current at 70,000 volts with a target plate dis-

tance of seventy centimetres (twenty-eight inches). Plates are placed anteriorly and the central ray passes through the fourth dorsal vertebra in the first skiagram and a vertical tube shift is used. Both skiagrams are taken on the one inspiration and six seconds are allowed for taking both skiagrams and making the tube shift and plate change. In medium chests the exposure is one and a half seconds for the first and two seconds for the second picture. With this technique it is usually possible to demonstrate a small pleural separation.

## Carcinoma of the Uterus.

HENRY SCHMITZ (*Northwest Medicine*, March, 1923) discusses the treatment of carcinoma of the uterus. He lays stress on the importance of a careful general and regional examination with corroboration by special laboratory methods. The regional examination should comprise a bimanual abdomino-vaginal examination and palpation of the cervix with inspection of the cervix, vagina, bladder and rectum by endoscope and speculum. He defines various groups of the condition as follows: (i.) Growths localized to the uterus; (ii.) growths on the border line in which early invasion outside the uterus is probable; (iii.) inoperable growths; (iv.) advanced growths with definite fixation; (v.) growths complicated by grave constitutional disease. Only growths in the first group can be considered favourable for surgical procedure and the other groups should not be submitted to operation. Correct dosage is absolutely necessary if disappointment is to be avoided. The author reproduces his dosage graphs in regard to the various intensity doses necessary. He does not favour repetition of dosage and states that the effects of an intensive radiation do not pass off for at least twelve months. Repetition may cause severe and permanent tissue injury.

## Deep X-Ray Therapy.

CHARLES B. WARD (*Northwest Medicine*, March, 1923) discusses the radiation of deep seated malignant lesions. The entire affected area must be treated with the maximum homogeneous radiation which the normal tissues will withstand while, where masses of malignant tissue are accessible, radium should be applied in addition. The author uses a current of 217,000 volts with a filter of one millimetre of copper and one millimetre of aluminium, the port of entry is twenty centimetres square and the distance from the skin is sixty centimetres. He thus delivers a 43% dose. The general condition of the patient must be taken into consideration, especially the blood condition, while X-ray examination of the chest is a routine procedure. Glandular drainage areas are treated in addition to the initial lesion. The so-called 100% or epilation dose may be doubled in the neck and extremities. The author advises against the use of iodine before radiation as it increases the violence of the skin reaction.

## British Medical Association News.

### SCIENTIFIC.

A MEETING OF THE NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the B.M.A. Building, Elizabeth Street, Sydney, on June 29, 1923, Dr. C. H. E. LAWES, the President, in the chair.

#### The Treatment of Diabetes.

PROFESSOR A. E. MILLS read a paper entitled "The Treatment of Diabetes" (see page 113).

#### Bone Growth in Infancy.

DR. ELSIE DALYELL, O.B.E., read a paper entitled "Recent Investigations into Growth of Bone in Infancy."

Dr. Dalyell's paper and a summary of the discussion on the two papers will be published in the issue of August 18, 1923.

### Corrigendum.

Dr. Lockhart Gibson calls our attention to the fact that in the report of the meeting of the Queensland Branch of the British Medical Association of May 3, 1923, the record of his case of gummata of the iris has been incorrectly given. The following is the note provided by him:

DR. LOCKHART GIBSON showed a case sent to him only that day from a northern town.

Female, aged thirty-six, married. The very excellent history her doctor sent made it clear that a primary infection had occurred soon after marriage ten years ago. The right eye started to trouble on April 18. When seen by her doctor twelve days later there was iritis with strong posterior synechia. When seen today the pupil was under the influence of atropine and very irregular, with very definite confluent gummata forming a raised line on the anterior surface of the iris above the edge of the wedge-shaped pupil and a similar raised line below the edge of the pupil. The only part of the pupil which has dilated, does not show any gummata. The pupil is occluded. The posterior synechia have been secondary to the gummata and have occurred only where they are situated, as you can see. A peculiarity of this case is a very generalized macular-papular eruption, scattered over the whole body and specially distinct on the face and neck. It is fading and had been diagnosed by the doctor two months ago. It is a tertiary eruption as the gummata of the iris prove, simulating an irregular secondary one. During the last two months she has had several injections of "Arseno-benzol" up to six grains. She has been put to bed in a private hospital and energetic inunction was commenced today. Very considerable all-round improvement may be expected in a week under inunction alone, but it may be three weeks before all present manifestations have disappeared.

Dr. Lockhart Gibson further informs us that in a little more than three weeks the manifestations disappeared, as he anticipated. Some of the posterior synechia, however, proved too well established to yield. The vision is now  $\frac{1}{4}$ . The patient is quite well.

### MEDICO-POLITICAL.

#### Meeting of the Federal Committee.

A MEETING OF THE FEDERAL COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION IN AUSTRALIA was held in the B.M.A. Building, 30 to 34, Elizabeth Street, Sydney, on July 18 and 19, 1923, Mr. G. A. SYME, the Chairman, in the chair.

#### Representatives.

The following representatives of the several Branches were present:

*New South Wales Branch:* DR. R. H. TODD, DR. J. ADAM DICK, C.M.G.

*Victorian Branch:* MR. G. A. SYME, DR. R. H. FETHERSTON.

*Queensland Branch:* DR. W. N. ROBERTSON, C.B.E.

*South Australian Branch:* DR. F. S. HONE, DR. H. S. NEWLAND, C.B.E., D.S.O.

*Tasmanian Branch:* DR. GREGORY SPROTT, DR. D. H. E. LINES.

Apologies for non-attendance were received from Dr. J. LOCKHART GIBSON, DR. E. BRETTINGHAM MOORE and DR. W. P. SEED.

It was agreed that DR. GREGORY SPROTT and DR. D. H. E. LINES should act as substitutes for Dr. E. BRETTINGHAM MOORE and DR. W. W. GIBLIN, C.B., the elected representatives of the Tasmanian Branch. DR. W. P. SEED sent a proxy in favour of Dr. R. H. TODD.

#### Gold Medal.

Arising out of the minutes of the meeting of February 7 and 8, 1923, the question was raised in regard to the presentation of the Gold Medal of the Federal Committee of the British Medical Association in Australia at the first session of Congress in November. The members expressed their gratification that the Chairman of the Federal Committee, Mr. G. A. SYME, was also President of the Australasian Medical Congress (British Medical Association), so that the presentation would in effect be by the Chairman of the Committee. It was resolved:

That the President of Congress be asked to present the Gold Medal of the Federal Committee of the British Medical Association in Australia to Dr. R. H. Todd and Dr. W. T. Hayward at the inaugural meeting of Congress.

#### Medical Officers' Relief Fund.

THE HONORARY SECRETARY presented the auditor's statements and the report of the Trustees of the Medical Officers' Relief Fund (Federal). On June 30, 1923, the fund amounted to £11,321 2s. 6d., part of which had been invested in Government stock and part had been loaned to beneficiaries. The cost of administration was very small. Grants from the fund had been made to a number of widows of medical men who had fallen in the war and to medical men who had been incapacitated. The balance-sheet and revenue account were received and adopted and the thanks of the Committee were accorded to the Trustees for their careful administration of the fund.

#### Maternity Bonus.

The Honorary Secretary read the correspondence that had passed between the Chairman of the Committee and the Taxpayers' Association dealing with a proposal to discuss with the Prime Minister the question of the advisability of amending the law concerning the Maternity Bonus. The Taxpayers' Association had invited the Chairman of the Federal Committee to join it in a deputation to the Prime Minister or the Federal Treasurer. The Chairman was authorized to attend a deputation to the Prime Minister or Treasurer for the purpose of explaining the views of the Federal Committee in this connexion.

#### Examination of Recruits for the Air Force.

The Honorary Secretary read a letter drawing the attention of the Federal Committee to the inadequate fee paid for medical examination of candidates for ground service in the Royal Australian Air Force. Inquiry had elicited that in States other than Victoria, where the Royal Australian Air Force had its headquarters and medical officers, the examination of recruits for general service (non-flying) had been included among the duties of the Deputy-Directors of Medical Services, as the Air Force was controlled by the Defence Department. A regulation had been introduced entitling the Deputy Directors of Medical Services or their nominees in the Australian Army Medical Service to a fee of five shillings for each recruit examined. The medical officer was required to fill in a form (Form P.M. 5) at the time of the examination. It was claimed that an examination entailing the investigation of the candidate's personal and family history, of the cardio-vascular, urinary and other systems, and organs *inter alia*, was not adequately remunerated by a fee of five shillings. In the course of a discussion, the opinion was claimed that duties of the medical officers of the Australian Army Medical Corps did

not include these examinations and that a special fee was paid because of this fact. The Federal Parliament was considering the *Air Defence Bill* and under its administrative conditions the Air Force would probably be required to make its own arrangements for the examination of applicants in States where there was no whole or part time medical officer. It was felt that the special fee for this work paid to medical officers of a different branch of the Defence Forces might be lower than that paid to a civilian medical practitioner undertaking the same kind of work. The civilian medical practitioner would demand a guinea for the work, which was equivalent to a life insurance medical examination. In some instances the work was carried out by a medical officer chosen by the Deputy-Director of Medical Services. It was doubtful whether so elaborate an examination was actually needed for men who would not be required to fly in aeroplanes. In regard to the Royal Australian Air Force, the medical officers received pay in accordance with their rank. A Flight Lieutenant if single was paid £676 per annum with £73 deferred pay, making £749 in all; if married he received £789, including deferred pay. A Squadron Leader was paid £768 and £82 deferred pay if single and £807 and £82 deferred pay if married. A Wing Commander if single received £877 and £109 deferred pay, making £986 in all and if married £1,026 including deferred pay. The Senior Medical Officer received the usual staff pay with certain allowances. Several members expressed the opinion that the examination should be thorough, not only because the Government might have to protect itself against claims made by men who were admitted with physical disabilities, but also because efficiency always depended on the possession of good health. If the examination had to be carried out by medical officers in other services, a reasonable fee should be offered. The Federal Committee therefore resolved that a letter be sent to the Air Force authorities, stating that the fee of five shillings was not sufficient, in view of the amount of work required to be done in accordance with Form P.M. 5.

#### Annual Meeting of the British Medical Association.

Reference was made to the fact that a cablegram had been addressed to the Representative Meeting of the British Medical Association in the previous year when the matter of the incorporation of the overseas Branches was under consideration. This expression of good-will had been appreciated by the representatives at Glasgow. In view of the prospective visit of Sir William Macewen to Australia on the occasion of the first session of the Australasian Medical Congress (British Medical Association), it was resolved to send a similar message wishing every success to the meeting and expressing pleasure in anticipation of the visit of the retiring President.

#### Incorporation of Overseas Branches.

The Honorary Secretary reported that in conformity with the wishes of the Federal Committee, he had been in consultation with Mr. Tress for the drafting of the model Articles and By-Laws for the incorporation of Branches in Australia. He regretted that the document, which was necessarily a very long one, was not ready to place before the meeting. He hoped that it would be completed in sufficient time to allow of its being sent to the Branches for perusal and criticism and for the submission of the document in its revised form at the November meeting of the Federal Committee. It was understood that ultimately each Branch would have to submit to the British Medical Association its completed draft Memorandum and Articles of Association for approval in accordance with Article 12 (5) of the British Medical Association (1922).

#### Australasian Medical Congress (British Medical Association).

##### Patrons.

The Honorary Secretary reported that His Excellency Sir Francis Newdegate, Governor of Western Australia and His Excellency Sir George Bridges, Governor of South Australia, had accepted the positions of Patron.

Mr. SYME pointed out that the Executive Committee of Congress had made inquiries and had learned that there

was no prospect of the immediate appointment of a Governor in Tasmania. It was therefore proposed to invite his Excellency Sir Herbert Nicholls, the Lieutenant-Governor of Tasmania, to become a Patron of Congress. The motion was seconded and carried unanimously.

It was also resolved that an invitation be sent to the Lieutenant-Governor of Papua, the Honourable J. H. P. Murray, to be a Patron of Congress.

Arising out of a communication received by the Executive Committee of Congress, the question was discussed whether the Lord Mayors of the capital cities should be invited to become Patrons. The Honorary Secretary informed the Committee that the only occasion on which a Lord Mayor had been a Patron, had been at the 1911 Congress. It was decided in the circumstances not to invite the Lord Mayors of the capital cities to be Patrons.

#### Vice-Presidents.

A letter was read from Dr. W. T. HAYWARD, accepting the position of Vice-President in virtue of his having held the office of Chairman of the Federal Committee and also in virtue of his being a Vice-President of the British Medical Association. He hoped to be present at the inaugural meeting of the first session in Melbourne.

#### Honorary Members.

On the nomination of the Executive Committee it was resolved to appoint Miss GEORGINA SWEET, D.Sc., Associate Professor of Biology at the University of Melbourne, an honorary member of Congress.

#### Visit of Sir William Macewen.

Mr. SYME read a letter from the Medical Secretary of the British Medical Association announcing the acceptance by Sir William Macewen, the President of the Association, of the invitation of the Executive Committee to be present at the Congress in November. Dr. Cox had asked Mr. SYME to send to Sir William Macewen full particulars of the arrangements that would be made. Sir William would be entertained by His Excellency the Earl of Stradbroke, Governor of Victoria, and later by His Excellency Lord Forster, Governor-General of Australia. Sir William would be asked to speak at the inaugural meeting and to open the new Anatomy School in the University of Melbourne. He was travelling through America and was expected to arrive in Sydney on October 17 or 19, 1923. It was suggested that a letter of welcome should be addressed to him on his arrival and that the New South Wales members of the Federal Committee should be asked to meet him on behalf of the Committee. Various other suggestions were made in connexion with his visit.

#### Progress in Organization.

Mr. SYME made a short statement in regard to the progress that had been made in the organization of the session. The programmes of the several Sections were taking shape and in the majority the chief discussions had been arranged and numerous papers had been announced. The programme of the Section of Dermatology was an exception. Very little had been achieved and the response to the invitation of the sectional committee had been disappointing. Endeavours were being made to remedy this. It was hoped that it would not be necessary to allow this section to lapse.

Certain alterations had been made among the officers of the sections. Dr. S. W. PATTERSON had left Australia and had consequently resigned his office of Vice-President of the Section of Pathology and Bacteriology. Dr. H. R. DEW had been appointed in his stead. In the Section of Ophthalmology, Dr. G. THOMSON, of Brisbane, had resigned the position of Vice-President and Dr. T. A. PRICE had been appointed. Dr. J. H. ANDERSON was leaving Australia shortly and had resigned the position of Vice-President of the Section of Naval and Military Medicine and Surgery. Dr. H. BOYD GRAHAM had been appointed in his place. Lastly, Dr. J. K. COUCH had resigned as Vice-President of the Section of Obstetrics and Gynaecology and Dr. D. P. CLEMENT had been appointed in his stead. In



other committees Dr. R. R. WETTENHALL had resigned his membership of the Entertainment and the Soirée Committees. Dr. O. W. RAWSON had been appointed to the former and Dr. S. O. COWEN to the latter to fill the vacancies.

Mr. Syme announced that up to the time of speaking three hundred and forty-one members had joined the Congress. About one-third of this number represented members outside Victoria. The members who had joined, would be accompanied by two hundred and twenty-nine ladies.

#### General Arrangements.

In view of the fact that the Federal Committee would not be in session again before the opening of Congress it was resolved:

That the powers of the Federal Committee be delegated to the Chairman to deal with matters that may arise in connexion with Congress.

It was understood that the Chairman would report to the Committee the steps he had taken at its next meeting.

#### Abstracts of Articles in Medical Journals.

The Honorary Secretary referred to the proposals of the Queensland Branch which had been considered by the Federal Committee at its meeting on February 8, 1923. Inquiries had been made by *The Medical Journal of Australia* of the editors of *The Lancet*, *The Journal of the American Medical Association* and *The American Journal of the Medical Sciences* and the opinion had been elicited that it would be impracticable to undertake to supply six copies of all articles appearing in these journals and reprinted in pamphlet form. It was recognized that no further action could be taken.

#### Medical Directory.

The Federal Committee at its meeting on February 8, 1923, had resolved that the Australasian Medical Publishing Company, Limited, be urged to consider the question of publishing a medical directory as soon as possible. The Honorary Secretary reported that the Australasian Medical Publishing Company, Limited, had considered this matter. He read a memorandum on the subject, setting out proposals for the work of compiling a medical directory and giving an estimate of the cost. It was pointed out that this work could not be undertaken until the Company had installed a complete printing plant. It was resolved:

That it be a recommendation to the Australasian Medical Publishing Company, Limited, to proceed with the publication of a medical directory as soon as possible and that the Federal Committee thinks that the less costly it is, the more likely it is to be a financial success.

#### Maternity Allowance.

On the motion of Dr. W. N. ROBERTSON, seconded by Mr. SYME, the Committee decided to reconsider its resolution of July 29, 1922, dealing with the maternity bonus. Dr. Robertson explained that a member of the Queensland Branch had brought the matter up for discussion by the Council of the Branch. The view had been expressed that puerperal infection was invariably passed on from patient to patient through the intermediation of the medical attendant and that under the existing conditions no improvement could be anticipated. The resolution of the Federal Committee was read and it was noted that the Federal Committee had expressed the view that in the endeavour to secure a reduction of the maternal morbidity and mortality and infantile mortality, the money devoted to the maternity bonus could be more effectively expended on the extension of maternity hospitals, ante-natal clinics and infant welfare centres, the provisions of more efficient midwifery training for nurses and medical students, the provision of help for mothers and expectant mothers in necessitous circumstances and such other measures as were advised from time to time by medical experience. It was recognized that the resolution of the Federal Committee was not aimed at the entire abolition of the maternity

bonus. The opinion was expressed that, while the bonus was frequently wasted and misspent, in many instances it did much good. It was doubted whether any Government would be prepared to press for the abolition of the bonus. It was desirable to attack this problem from the medical aspect, without any consideration of the political influences at work. It was thought that the certificate should be modified in order that the bonus should be paid only to those whose social condition rendered assistance necessary for the time of the confinement. Mention was made of a proposal whereby the Federal authority would meet the cost of medical and nursing attendance to women in poor circumstances. A similar scheme had been in action in New South Wales. The policy of the Federal Committee had been based on general principles. There were not enough ante-natal clinics or maternity beds in hospitals to safeguard the health of mothers. In the end it was resolved that no alteration of the previous resolution be made.

#### Control of Intestinal Infective Diseases.

The Honorary Secretary reported that the Branches had been circularized with a request that each Branch be invited to approach the part-time medical officers of health in the State with a view to obtaining a report on intestinal infective diseases and, after consultation with local engineers on the best means for the control of these diseases. The reports would be transmitted to the President of the Section of Preventive Medicine of the Australasian Medical Congress (British Medical Association). A reply had been received from the Western Australian Branch to the effect that the work was being carried out by the Department of Public Health. A reply from the Queensland Branch had also been received. The Council of this Branch had suggested that the Director-General of Health should write directly to the part-time medical officers of health to collect the information.

Dr. R. H. TODD reported that the New South Wales Branch was interested in the matter but was unable to assist, in view of the fact that there were no part-time medical officers of health in the State. The Council of the Branch had considered that it would be useless to circularize every member of the Branch in the rural areas. This would be an expensive procedure and the results would probably be of little help to the President of the Section of Preventive Medicine.

Dr. R. H. FETHERSTON said that the country medical officers of health in Victoria had been circularized. Replies had been received from over fifty, about one-third of those to whom the inquiry had been addressed. It seemed that there was not a great deal of intestinal infective disease in the State. Some of the medical officers of health had not understood what was meant by the term.

Dr. F. S. HONE regretted that there had been so much confusion. As President of the Section, he was prepared to collaborate with the Branches in the collective inquiry. The attitude of the Queensland Branch in suggesting that the inquiry should be left to the Director-General of Health had rendered all idea of collaboration nugatory. He spoke of drawing up a questionnaire, but the time was too short for an extensive inquiry before the Congress. Intestinal infective diseases were very prevalent in some districts. In order to control these affections it was essential that the conditions should be uniform. In New South Wales the administrative control was centralized, while in the other States the responsibility was thrown on the municipalities.

Dr. R. H. Todd said that if Dr. Hone would let them have the questionnaire, they would, if possible, forward it among the members in the New South Wales Branch.

In the course of further discussion it was pointed out that the Director-General of Health was not in a good position to undertake this inquiry owing to the fact that his Department had no status except at the request of the State authorities.

#### Factory Surgeons and Industrial Medical Advisers.

The Honorary Secretary reported that the Branches had been asked to consider the question of the qualifications



for factory surgeons and industrial medical advisers. A reply had been received from the Western Australian Branch, in which it was stated that the work of factory inspections was carried out by the Department of Public Health. It was held that the equipment of a factory surgeon should comprise common sense and a knowledge of public health work. A reply from the Queensland Branch was read to the effect that the representatives had been instructed in regard to this matter. The Honorary Secretary pointed out that in New South Wales there were no factory surgeons. The *Factory Act* provided for the medical examination and the production of a certificate for every person under fourteen years of age as to suitability for employment in a factory. Medical practitioners acted as certifying surgeons under the provisions of the *Workmen's Compensation Act* as in other States. It was thought that the best qualifications for medical advisers to industrial establishments were those set out in Hope, Hanna and Stallybrass's book. The chief educational equipment appeared to be the possession of a diploma in public health.

Very little information was elicited in the ensuing discussion.

#### Organization of Public Health.

A discussion took place on some matters connected with public health administration. It was resolved:

That Drs. F. S. HONE and H. S. NEWLAND be appointed a sub-committee to present a report on the organization of public health for submission to the next meeting of the Federal Committee.

It was understood that if the report were ready in time, copies would be sent to the members of the Committee for perusal before the meeting.

#### The Pan-Pacific Science Congress.

It was resolved that a message be sent by the Federal Committee wishing the Pan-Pacific Science Congress a successful meeting in Melbourne and Sydney, in August and September, 1923.

#### Next Meeting of the Federal Committee.

It was decided that the next meeting of the Federal Committee would be held in Melbourne in November during the first session of the Australasian Medical Congress, the exact date to be fixed by the Chairman.

#### Votes of Thanks.

On the motion of Dr. R. H. FETHERSTON a hearty vote of thanks was passed to the Council of the New South Wales Branch of the British Medical Association for their hospitality and for having placed a room at the disposal of the Committee for its meeting.

A cordial vote of thanks was passed to Mr. SYME for the admirable manner in which he had conducted the business of the meeting.

#### NOMINATIONS AND ELECTIONS.

THE undermentioned have been nominated for election as members of the New South Branch of the British Medical Association:

COOMBE, CHARLES WALTER, M.B., Ch.M., 1922 (Univ. Sydney), Denver Road, Five Dock.

LAWES, CHARLES HENRY WICKHAM, M.B., Ch.M., 1923 (Univ. Sydney), 60, New Canterbury Road, Petersham.

VICKERY, COLIN EDWIN, M.B., Ch.M., 1923 (Univ. Sydney), Strathfield Avenue, Strathfield.

THE undermentioned has been elected a member of the South Australian Branch of the British Medical Association:

STEGMANN, FERDINAND HENRY AUGUST, L.R.C.P. et S. (Edin.), L.R.F.P.S. (Glasg.), 1922.

## Congress Notes.

### THE PAN-PACIFIC SCIENCE CONGRESS.

THE following is the provisional programme of the Section of Hygiene (Melbourne meeting) of the Pan-Pacific Science Congress.

#### Tuesday, August 14, 1923.

Morning Session: 10 a.m. to 1 p.m.

1. PROFESSOR H. G. CHAPMAN: "Dust Diseases and the Different Types of Silicosis and Lead Poisoning."
2. DR. WATKINS-PITCHFORD: "Miners' Phthisis."
3. MR. D. HARRINGTON: "Metal Mine Ventilation, with Special Reference to the Use of Flexible Canvas Tubing."
4. MR. P. H. WARREN: "Ventilation and Dust Control in Metal Mines."
5. MR. A. A. ATKINSON: "Ventilation, Hygiene and Accidents in Coal Mines."
6. Demonstration from the Broken Hill South Mines, of Methods of Dust Prevention.

#### Wednesday, August 15, 1923.

Morning Session: 10 a.m. to 1 p.m.

1. DR. R. R. SAYERS (Chairman's Address): "Coal Mine Sanitation."
2. DR. W. C. SWEET: "Hookworm Disease in Australian Mines."
3. MR. CHINNERY: "Health of Native Miners in the New Guinea Copper Mines."
4. MR. J. W. SALTER: "Underground Hygiene in Metal Mines."
5. MR. A. C. WILLIS: "Mine Hygiene from the Workers' Point of View."

#### Friday, August 17, 1923.

Morning Session: 10 a.m. to 1 p.m.

1. DR. J. H. L. CUMSTON: "General Survey of the Field of Public Health in the Pacific."
2. DR. HENRY R. CARTER: "A Survey of Yellow Fever on the Pacific Littoral and the Risk of its Introduction into Asia, Australasia and the Pacific Islands."
3. DR. W. M. STRONG: "A Method of Malarial Prophylaxis by Means of Quinine." Discussion on malaria and filariasis to be opened by Dr. JOHNSON, Hong Kong, China.
4. Discussion of the outstanding health problems by delegates from the Pacific region.

#### Monday, August 20, 1923.

Afternoon Session, 2 p.m. to 5 p.m.

1. Discussion on the control of plague among native races.
2. DR. J. J. VAN LONKHUYSEN: "The Control of Small-pox Amongst Native Races."
3. DR. W. M. STRONG: "The Prevention and Treatment of Dysentery in Papua."
4. DR. F. H. BEARE or DR. MARJORIE LITTLE: "The Value of Anti-Dysenteric Serum."
5. DR. ARMSTRONG, Western Samoa: "The Common Diseases of the Samoan, with Reference to their Prevention and Cure."
6. SIR LEONARD ROGERS: "The Treatment of Leprosy."
7. DR. F. GRANTLEY MORGAN: "A Study of Leprosy at Nauru."
8. Discussion on the Method of Cooperation in Public Health Matters in the Pacific.

#### Tuesday, August 21, 1923.

Morning Session: 10 a.m. to 1 p.m.

Joint Session with the Section of Anthropology and Ethnology.

1. HIS EXCELLENCY JUDGE MURRAY, Lieutenant-Governor of Papua: Address on "The Social Factors Among the Causes of the Decline of Native Races in the Pacific Islands."

2. DR. A. C. HADDON: "The Social Factors Among the Causes of the Decline of Native Races in the Pacific Islands." Discussion to be opened by Dr. P. H. Buck.

3. PROFESSOR C. J. MARTIN: "The Health Factors Among the Causes of the Decline of Native Races in the Pacific Islands."

4. DR. R. W. CILENTO: "The Health Factors Among the Causes of the Decline of Native Races in the Pacific Islands."

## University Intelligence.

### TESTIMONIAL TO PROFESSOR SIR HARRY ALLEN.

THE EXECUTIVE COMMITTEE OF THE PROFESSOR SIR HARRY ALLEN TESTIMONIAL FUND (see THE MEDICAL JOURNAL OF AUSTRALIA, October 14, 1922, page 459, and January 6, 1923, page 27) has resolved to close the fund on September 30, 1923. The committee therefore asks those members of the medical profession who desire to associate themselves with this movement, to forward their subscriptions to the Honorary Treasurer, Dr. C. H. MOLLISON, 41 Spring Street, Melbourne.

The following have already subscribed to the Fund (July 13, 1923):

Drs. L. H. Alexander, A. V. M. Anderson, J. H. Anderson, J. R. Anderson, R. J. Anderson, F. Andrew, F. Apperly, G. W. Armstrong, C. Bage, Edith M. Barrett, J. W. Barrett, J. R. Bell, Dougan Bird, F. D. Bird, J. P. Black, W. R. Boyd, Lucy M. Boyce, W. Boyes, F. J. Bonnin, D. D. Browne, J. S. Buchanan, A. Graham Butler, R. W. Chambers, E. Champion, T. Chenoweth, L. J. Clendinnen, F. H. Cole, J. M. Cowan, J. Crawcour, P. A. Croker, F. J. Crawford, M. Crivelli, G. C. Cuscaden, A. F. Davenport, A. J. Day, W. J. Dennehy, A. P. Derham, H. B. Devine, H. C. Disher, J. H. Downing, H. D. Downing, L. Doyle, T. P. Dunhill, E. P. Eames, Constance Ellis, E. H. Embley, K. D. Fairley, N. H. Fairley, A. W. Farmer, P. W. Farmer, H. N. Featonby, R. H. Fetherston, S. C. Fitzpatrick, R. Fowler, G. W. Foster, J. E. Francis, H. Gilbert, H. B. Gill, F. W. Green, Rachel Gross, Jean S. Greig, H. J. Gray, Colin Gray, E. Graves, W. R. Groves, M. Gamble, H. B. Graham, W. H. Godby, H. R. Hawkins, N. R. Henderson, H. Herlitz, J. H. C. Hicks, A. M. Hill, R. Howden, C. R. Griffith, F. W. Grutzner, I. J. Holmes, E. S. Jackson, H. B. James, H. S. Jacobs, S. C. Jamieson, F. D. Jermyn, J. L. Jona, R. McK. Hall, W. A. Hailes, E. Harbison, J. T. Hollow, J. W. D. Hooper, T. E. V. Hurley, T. M. Kennedy, B. Kilvington, C. R. King, F. E. Langley, H. Lawrence, H. B. Lawton, D. Lines, W. J. Long, Fay MacIure, E. A. Mackay, J. S. Mackay, J. F. Mackeddle, M. Mailer, M. H. Mailer, J. T. Mathews, G. A. D. McArthur, F. G. Middleton, E. Milligan, A. W. Mitchell, J. Morlet, C. H. Mollison, A. E. Morris, J. N. Morris, D. D. M. Morton, T. Murphy, Margt. H. McLorinan, D. McLean, D. Nance, W. F. Noyes, F. J. Owen, M. B. O'Sullivan, S. W. Patterson, W. J. Penfold, Chas. Perry, C. R. Player, B. Quick, Christina Reid, C. Reid, E. Robertson, R. Hamilton Russell, J. H. Rutter, Chas. Ryan, E. E. R. Sawrey, R. Sherwin, M. D. Silberberg, J. R. Smeal, Cochrane Stanley, M. A. Stewart, W. E. Summons, W. H. Summons, G. A. Syme, G. W. Taylor, W. G. D. Upjohn, J. R. Webb, R. Webster, R. R. Wettenhall, G. Weigall, A. E. R. White, J. F. Wilkinson, W. E. Wilson, A. J. Wood, F. A. Wood, W. A. Wood, H. W. Wunderly, T. W. Wynne, J. S. Yule, B. T. Zwar.

## Correspondence.

### THE WASSERMANN REACTION.

SIR: Would you kindly allow me to reply briefly to Dr. Shearman's criticism (THE MEDICAL JOURNAL OF AUSTRALIA, June 30, 1923, page 735) of my letter on the Wassermann reaction in secondary syphilis (June 2, 1923). My reply is

somewhat belated because it was hoped that the serum in question would be obtained and carefully examined by both of us. There is no disagreement as to published facts, viz.: that Hamilton Fairley and Shearman obtained a definite reaction in the sera of one hundred and twenty consecutive patients when using the cold method. Mathematically, the probability that there is a necessary correlation here is very strong and since these two workers record that in four out of these one hundred and twenty sera the warm method failed to elicit an unequivocal reaction, my position, viz.: that in the interesting case reported by Dr. E. H. Molesworth (THE MEDICAL JOURNAL OF AUSTRALIA, May 12, 1923, page 529), either the reaction was missed or the diagnosis was erroneous, is not one from which I can easily be moved. Now Dr. Shearman admits the possibility of the error in this case being due to the use of the warm method and traverses the possibility of the error being due to the employment of complement of low fixability, which I will concede him, and yet he concludes with the remarkable statement: "I am of the opinion that the failure to react in this instance was due to a lack of response on the part of the individual tissues to react against the invading organism." I am compelled to protest against this complete begging of the question. Neither Dr. Shearman nor I know why this patient failed to give a reaction and he is not justified in selecting one explanation. No one can logically follow him there.

Again—and here we leave the facts and consider the theory—I prefer to differ in my conception of the serological reactions in syphilis. Dr. Shearman writes: "When the invading organisms are overwhelming in their action and the body is unable to marshal its defensive forces, there is no Wassermann substance formed because of the failure on the part of the tissues to react to the invasion." I prefer to distinguish clearly between Wassermann substance and specific immune body and in this connexion would quote H. Noguchi (*The Journal of the American Medical Association*, Vol. LVIII, page 1,170): "In the serum of rabbits with active syphilitic orchitis there is no indication of the presence of a sufficient amount of the antibodies for the 'pallida' antigen, although it gives a strong Wassermann reaction. It remains to be seen when and under what conditions the specific antibodies for the 'pallida' will most abundantly be formed in syphilitic patients." He concludes thus: "We have in the Wassermann reaction a fair measure of activity of the infecting agent and now we will have in the 'pallida' fixation reaction a gauge for the defensive activity of the infected host."

Yours, etc.,

A. H. TEBBUTT.

185, Macquarie Street, Sydney,

July 17, 1923.

### BLOOD GROUPING AND TRANSFUSIONS.

SIR: Would you kindly publish my answer to the queries of Dr. J. R. L. Willis in your issue of the seventh instant? There are several methods of grouping or testing for compatibility in common use. The most common and oldest method is that of Moss, in which the citrated corpuscles of the patient and would-be donors are tested against known Groups II. and III. sera. The results are interpreted as follows:

Group II. serum plus corpuscles of patient or donor . . . . .	+	-	+	-
Group III. serum plus the same . . . . .	+	+	-	-
Inference: Patient or donor belongs to . . . . .	I.	II.	III.	IV.

+ Means agglutination.

Preparation should always be made, if possible, for the examination of several donors. My results so far show that approximately nine-tenths of Australians belong to Groups II. and IV. (in this letter I am using Moss's classification only) and for patients belonging to these two groups, wholly compatible blood should be employed, that is to say, Group II. blood for Group II. patients and Group IV. for Group IV. I suggest that the minor reactions obtained with Group IV. blood (universal donors) are associated with known incompatibility of Group IV. sera for corpuscles of the other groups. With regard to the remaining one-tenth, Groups I. and III., it is unlikely that a donor belonging to these groups will be found amongst available donors, although in large centres a professional Group III. donor may be obtained. These two minor groups will usually be given Group IV. blood. In approximately three-fifths of cases Group IV. blood will be used and Group II. blood in the other two-fifths.

Groups II. and III. sera for testing are not always available and that they may on keeping depreciate considerably is my unfortunate experience. It is my practice not to use sera which have been kept longer than two weeks. At the Royal Prince Alfred Hospital, we have also been using Brem's method (Bernheim's "Blood Transfusion, Hemorrhage and the Anemias," page 238). The corpuscles and sera of a known Group II. person are set up against sera and corpuscles of both patient and donors.

The group is determined as follows:

Group II. serum <i>plus</i> corpuscles of patient or donor . . . . .	+	-	+	-
Serum of patient or donor <i>plus</i> Group II. corpuscles . . . . .	-	-	+	+
Inference: Donor or patient belongs to . . . . .	I.	II.	III.	IV.

+ Means agglutination.

Failing any group sera at all and as a check on Moss's or Brem's test, compatibility may be determined by testing the citrated blood (corpuscles) of the donor against the serum of the patient and, if possible, the reciprocal test should always be made, *viz.*: the citrated blood of the patient against the serum of the donor and the fully compatible donor used rather than the partially compatible. On no account should only a test of the corpuscles of the patient against the serum of the donor be relied upon. It cannot be too strongly emphasized that transfusions of whole blood without tests for compatibility will in a certain proportion of cases do more harm than good and may insure a fatal issue in transfusions *de convenance*.

Dr. Mona Ross assures me that since we have used as far as possible only fully compatible bloods at the Royal Prince Alfred Hospital, the reactions by the citrate method have been of a distinctly minor character and it seems to me that objections to this method are negligible and with such apparatus as Keynes uses in St. Bartholomew's Hospital, transfusions in country districts are not a formidable task though they demand careful preparations and an appreciation of the subject. The work of Guthrie and Huck is extremely interesting and, if confirmed, makes the direct tests for compatibility imperative.

Yours, etc.,

A. H. TEBBUTT.

"Craignish," 185, Macquarie Street,  
Sydney, July 14, 1923.

## Obituary.

GEORGE EDWARD MILES.

GEORGE EDWARD MILES, whose death on June 11, 1923, was reported in a recent issue of this journal, was well known and highly respected in New South Wales for a period

of nearly thirty years, preceding his retirement in 1914, from the services of the State. He was born in 1853, the son of an English coffee planter, in Jamaica. He studied medicine at Guy's Hospital, in London, and qualified in the year 1884. During the following years he was engaged in private practice and also in the capacity of assistant medical officer in lunatic asylums. One of his appointments was held in London and the other in Denbigh, in Wales. In 1885, shortly after his marriage, he travelled with his wife to New South Wales. Soon after his arrival he entered the Mental Hospital Service and was appointed as medical officer at Callan Park Hospital for the Insane in July, 1886. He remained in this position until December, 1894, when he was transferred to the Newcastle Hospital for the Insane as Medical Superintendent. He worked in this capacity until April, 1898, and during part of these four years he acted as Chief Port Medical Officer. In May, 1898, he accepted the post of Medical Superintendent at the Rydalmere Hospital. In the well-ordered organization of this institution today and in the beauty of its grounds are many traces of his care and supervision. His work in the mental hospital was of a high order and he enjoyed the respect and admiration of those responsible for the service. On his retirement in January, 1914, he returned to England on leave. He visited his sisters in London and at Budleigh Salterton in Devonshire. He was still in England in August when war began. Though sixty-one years of age at the time, he enlisted at once, obtained a commission as lieutenant in the Royal Army Medical Corps and was posted to Netley Hospital. Many of the soldiers from the first Expeditionary Force must have passed through his hands. After he had been in charge of the mental division at the Netley Hospital for many months, he was given a belated lieutenant-colonelcy. He continued to serve throughout the whole period of the war in his specialty and eventually attained the rank of colonel and the position of Mental Specialist to the Southern Command. His activities in this appointment extended over the whole of the south of England; his headquarters were at Salisbury. Before demobilization at the beginning of 1919, he received the Commandership of the Order of the British Empire. It was not until 1921 that George Edward Miles was able to return to Australia, owing to many months of illness. He underwent a series of operations twelve months ago. Notwithstanding the treatment, his health continued to fail and as a result he was compelled to live a quiet life of retirement during the past two years.

He was known as a strict disciplinarian, yet he was the more respected as being in all things a just and honourable man. Socially his ease of conversation, his memory for anecdote and his dry humour never failed to entertain, as his rare natural courtesy of manner never failed to charm. His knowledge of men and affairs, combined with a large generosity of mind and of heart made the friendship of George Edward Miles a thing greatly to be valued. He is survived by a widow and two daughters.

ARTHUR GERALD MCGOWAN.

Untimely death has robbed Ballarat and Victoria of one of their best medical men. Only forty-eight years of age and in the very prime of his power, Arthur Gerald McGowan passed away after a few days' illness on June 13, 1923. Son of one of Victoria's leading business men, Arthur McGowan was educated at one of the best schools of the day, the Ballarat College and studied medicine at the Melbourne University, graduating there in 1897. After graduation, he filled the posts of resident physician and surgeon at the Ballarat Hospital. After practising for a time in the country he settled in Ballarat in 1902, exactly twenty-one years before his death. He was an intensely patriotic Australian, justly proud of his parents, his native city, his school and his University. He was ready at all times to maintain their worth in the face of any criticism. And at the same time his reading and sympathies were world-wide. He was a big man in every way, a large physical frame, a sonorous jovial voice, a bluff breezy manner hiding an unusually warm-hearted and large nature, a big brain and a fine personality. His patients,



rich and poor alike, speak of him with quite unusual affection; many cannot speak of him at all without a break in the voice and actual tears in their eyes and all testify to his skill, his ready sympathy and advice, his unvarying kindness and his great generosity. Especially is he missed by the old folk at the Benevolent Institution, to whom he was doctor, father and son in one. His colleagues and friends miss him even more. He was a physician of great skill, quick insight and sound judgement, an exceptionally good obstetrician and one of the best anaesthetists our profession has possessed. In a world where men are quickly forgotten, Arthur Gerald McGowan's memory will remain fresh for a very long span in the minds and affections of a wide circle of patients and friends.

### Books Received.

THE OFFICIAL HISTORY OF AUSTRALIA IN THE WAR OF 1914-1918: VOLUME VIII, THE AUSTRALIAN FLYING CORPS IN THE WESTERN AND EASTERN THEATRES OF WAR: 1914-1918, by F. M. Cutlack; 1923. Sydney: Angus and Robertson, Limited; Demy 8vo., pp. xxvii. + 485, with 53 illustrations, 19 maps and 10 sketch maps. Price: 18s. net.

PRACTICAL BACTERIOLOGY, BLOOD WORK AND ANIMAL PARASITOLOGY, INCLUDING BACTERIOLOGICAL KEYS, ZOOLOGICAL TABLES AND EXPLANATORY CLINICAL NOTES, by E. R. Smit, A.B., Ph.G., Sc.D., LL.D.; Seventh Edition, Revised and Enlarged; 1923. Philadelphia: P. Blakiston's Son and Company; Sydney: Angus and Robertson, Limited; Post 8vo., pp. xv. + 766, with 197 figures. Price: 25s. net.

THE CLINICAL EXAMINATION OF THE NERVOUS SYSTEM, by G. H. Monrad-Krohn, M.D. (Christiania), M.R.C.P. (Lond.), M.R.C.S. (Eng.); with a Foreword by T. Grainger Stewart, M.D., F.R.C.P.; Second Edition; 1923. London: H. K. Lewis and Company, Limited; Crown 8vo., pp. xvi. + 148, with 33 illustrations, including four plates. Price: 6s. net.

SURGICAL NURSING AND AFTER-TREATMENT: A HANDBOOK FOR NURSES AND OTHERS, by H. C. Rutherford Darling, M.D., M.S. (Lond.), F.R.C.S. (Eng.), F.R.F.P.S. (Glasgow); Second Edition; 1923. London: J. and A. Churchill; Sydney: Angus and Robertson, Limited; Crown 8vo., pp. xii. + 566, with 129 illustrations. Price: 10s. 6d. net.

EPIDEMIOLOGY AND PUBLIC HEALTH, by Victor C. Vaughan, M.D., LL.D., assisted by Henry F. Vaughan, M.S., Dr.P.H. and George T. Palmer, M.S., Dr.P.H.; in Three Volumes; Volume II: Nutritional Disorders, Alimentary Infections, Percutaneous Infections; 1923. St. Louis: C. V. Mosby Company; Royal 8vo., pp. 917, with 53 illustrations. Price: \$9.00.

### Medical Appointments.

DR. JOHN WALKER has been appointed by the Kalgoorlie Municipal Council, Western Australia, as Acting Medical Officer of Health.

THE following have been appointed to be members of the Masseurs' Registration Board of Victoria: Dr. J. W. SPRINGTHORPE (B.M.A.), Dr. H. L. MURRAY (B.M.A.).

DR. E. L. SYMONS (B.M.A.) has been appointed Medical Officer at the Port Augusta Hospital, South Australia.

DR. A. JEFFERIS TURNER (B.M.A.) and Dr. H. J. WINDSOR (B.M.A.) have been appointed Members of the Queensland Medical Board.

DR. J. DENNY has been appointed Quarantine Officer at Cossack, Western Australia.

### Medical Appointments Vacant, etc..

FOR announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xviii.

LADY BOWEN HOSPITAL, BRISBANE: Honorary Physician. MELBOURNE HOSPITAL, MELBOURNE: Acting Medical Electrician and Dentist.

### Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C.

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney	Australian Natives' Association Ashfield and District Friendly Societies' Dispensary Balmain United Friendly Societies' Dispensary Friendly Society Lodges at Casino Leichhardt and Petersham Dispensary Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney Marrickville United Friendly Societies' Dispensary North Sydney United Friendly Societies People's Prudential Benefit Society Phoenix Mutual Provident Society
VICTORIA: Honorary Secretary, Medical Society Hall, East Melbourne	All Institutes or Medical Dispensaries Australian Prudential Association Proprietary, Limited Mutual National Provident Club National Provident Association
QUEENSLAND: Honorary Secretary, B. M. A. Building, Adelaide Street, Brisbane	Brisbane United Friendly Society Institute Stannary Hills Hospital
SOUTH AUSTRALIA: Honorary Secretary, 12, North Terrace, Adelaide	Contract Practice Appointments at Renmark Contract Practice Appointments in South Australia
WESTERN AUSTRALIA: Honorary Secretary, Saint George's Terrace, Perth	All Contract Practice Appointments in Western Australia
NEW ZEALAND (WELLINGTON) Division: Honorary Secretary, Wellington	Friendly Society Lodges, Wellington, New Zealand

### Diary for the Month.

- AUG. 8.—Western Australian Branch, B.M.A.: Council  
AUG. 8.—Melbourne Paediatric Society.  
AUG. 10.—New South Wales Branch, B.M.A.: Clinical Meeting.  
AUG. 10.—Queensland Branch, B.M.A.: Council.  
AUG. 10.—South Australian Branch, B.M.A.: Council.  
AUG. 14.—New South Wales Branch, B.M.A.: Ethics Committee.  
AUG. 15.—Victorian Branch, B.M.A.: Council.  
AUG. 15.—Western Australian Branch, B.M.A.: Branch.  
AUG. 16.—City Medical Association, New South Wales.  
AUG. 21.—New South Wales Branch, B.M.A.: Executive and Finance Committee.  
AUG. 21.—Illawarra Suburbs Medical Association, New South Wales.  
AUG. 24.—Queensland Branch, B.M.A.: Council.  
AUG. 28.—New South Wales Branch, B.M.A.: Medical Politics Committee; Organization and Science Committee.  
AUG. 30.—South Australian Branch, B.M.A.: Branch.  
AUG. 31.—New South Wales Branch, B.M.A.: Branch.  
SEP. 5.—Victorian Branch, B.M.A.: Branch.  
SEP. 6.—New South Wales Branch, B.M.A.: Nomination of two candidates to Federal Committee.

### Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to "The Editor, THE MEDICAL JOURNAL OF AUSTRALIA, B.M.A. Building, 30-34, Elizabeth Street, Sydney. (Telephone: B. 4635.)

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